

Release date: August 15, 2019

RECOMMENDATIONS

#1 ADOPT MENTAL WELL-BEING STRATEGIES AS PART OF THE SOCIAL EMOTIONAL LEARNING FOR STUDENTS

#2 IDENTIFY AND DISTRIBUTE PROVINCIAL BEST PRACTICE YOUTH MENTAL HEALTH GUIDELINES

#3 EXPAND YOUTH MENTAL HEALTH SERVICES, INCLUDING PSYCHIATRIC SERVICES, TO NON-URBAN AREAS THROUGH OUTREACH MODELS

PREFACE

On December 13, 2018, the British Columbia Coroners Service (BCCS) held a death review panel of young persons who died by suicide. In the five-year period reviewed, 111 young people age 10 to 18 years old, ended their lives when confronted with feelings of hopelessness, distress or despair. The review of the circumstances of these deaths provided panel members with valuable information to consider what could be done to prevent similar deaths. This report is dedicated to the families, friends and communities who lost loved ones.

Panel support was provided by BCCS staff. Cara Massy provided administrative support and Carla Springinotic, Adele Lambert and Andrew Tu prepared the file-review analysis and background research which formed the basis of the panel discussions, findings and recommendations.

I am sincerely grateful to the following members of this panel for sharing their expertise, bringing the support of their respective organizations and participating in a collaborative discussion. The participants' contributions have generated actionable recommendations that I am confident will contribute to addressing suicide deaths of young persons in British Columbia (BC).

Dave Attfield - RCMP Chief Superintendent, Deputy Criminal Operations Officer

Dr. Jatinder Baidwan – Chief Medical Officer, BC Coroners Service

Dr. Tyler Black – Medical Director, BC Children's Hospital

Lorena Bishop – Federation of BC Youth in Care Networks

Roxanne Blemings - Director, Mental Health Substance Use, Ministry of Health

Susan Clough – BC Principals and Vice Principals Association

Dr. Murray Fyfe – Medical Health Officer, Island Health Authority

Nick Grant – Assistant Deputy Minister, Ministry of Mental Health and Addictions

Dr. Reka Gustafson – Medical Health Officer, Vancouver Coastal Health

Brian Hill – Director of Monitoring, Ministry of Children and Family Development

Carly Hyman – Chief Investigator, Office of the Representative for Children and Youth

Dave Jagpal – Director, Service Delivery, Ministry of Social Development and Poverty Reduction

Jennifer McCrea – Assistant Deputy Minister, Ministry of Education

Dr. Shannon McDonald – Deputy Chief Medical Health Officer, First Nations Health Authority

Cloe Nicholls – Executive Director, Learning Division, Ministry of Education

Dr. Ian Pike - Director, BC Children's Hospital Research Institute

Dr. Elizabeth Saewyc – Director, University of British Columbia, School of Nursing

Dr. Aaron Shapiro – Provincial Health Service Authority, Provincial Toxicology Centre

Dr. Nel Wieman – Senior Medical Officer, First Nations Health Authority

On behalf of the panel, I submit this report and recommendations to the chief coroner of BC.

Michael Egilson, Panel Chair

Michael Cal

EXECUTIVE SUMMARY

Suicide is the leading cause of injury-related death among children and youth in BC. Youth suicide accounts for more deaths than motor vehicle incidents or overdose. Child and youth suicide remains a complex phenomenon and is difficult to predict. Its occurrence is devastating to family, friends and the community.

To better understand these deaths and identify prevention opportunities, a death review panel appointed under the *Coroners Act* was held on December 13, 2018. The panel was comprised of professionals with expertise in youth services, child welfare, mental health, addictions, medicine, nursing, public health, Indigenous health, injury prevention, education, income support, law enforcement and health research.

This report presents findings of 111 child and youth¹ suicide deaths which occurred during the period of January 1, 2013, to June 30, 2018. The panel reviewed the circumstances and factors identified during the BC Coroners Service death investigations and found that although it is difficult to predict individual suicides, suicide prevention is possible. To effectively prevent youth suicide requires addressing the broad continuum of prevention through treatment. This includes giving all young people the tools, skills and supports to deal and cope with transitory and ongoing life challenges, identifying where and when young people need additional help and by understanding and addressing the underlying conditions and motivations for suicide behaviour. The panel also identified that all health care providers need accessible practice and treatment guidelines for management of child and youth mental health.

To ensure the needs of young people are met, they need to be engaged as partners in the development of policies, programs and services in all aspects of the continuum.

The review found:

- Although suicide risk factors are understood, predicting suicides is very difficult;
- Psychiatric medication prescribing guidelines for children and youth were not readily accessible for all health professionals;
- Barriers (systemic and personal) existed for families to successfully engage with or access services;
- A need for timely access to mental health supports and services; this is even more evident in non-urban areas; and,
- A disproportionate number of Indigenous young people died.

The panel identified the following key areas to reduce the deaths:

- Support all young people in learning the skills to regulate their emotional and stress responses;
- Make mental health treatment best practice guidelines and psychiatric medication prescribing guidelines easily accessible to physicians and other health care providers;

 $^{^{\}rm 1}$ This review includes suicide deaths of children and youth age 10 to 18 years

- Ensure physicians and other health care providers have access to training and consultation supports;
- Improve approaches to engage youth and families and offer support and services; and,
- When youth access services ensure they are receiving the recommended evidence-based treatment.

These findings are the basis for the following recommendations put forward to the chief coroner by the panel.

Recommendation 1

Adopt mental well-being strategies as part of social emotional learning for students

 By September 1, 2020, the Ministry of Education in collaboration with the Ministry of Mental Health and Addictions and the Ministry of Health will enhance social emotional learning curriculum to foster mental health literacy and mental well-being coping skills from K-12.

Recommendation 2

Identify and distribute provincial best practice youth mental health guidelines

- By September 1, 2020, the Ministry of Mental Health and Addictions in collaboration with the Ministry of Health and Ministry of Children and Family Development (MCFD) will identify and distribute best practice guidelines for matching best practice therapies with youth mental health diagnoses.
- By September 1, 2020, the Ministry of Health in collaboration with relevant stakeholders will identify and distribute best practice psychiatric medication guidelines for young people.
- By September 1, 2020, the Ministry of Health in collaboration with relevant stakeholders will
 review current psychiatric medication prescribing practices to determine if the prescribing
 practices identified in this report are reflective of psychiatric medication prescribing practices
 for children in general.

Recommendation 3

Expand specialty youth mental health including psychiatric services to non-urban areas through outreach models

- By September 1, 2020, the Ministry of Mental Health and Addictions in collaboration with the Ministry of Health and the Ministry of Children and Family Development improve access to specialty youth mental health and psychiatric services to non-urban areas through telehealth/virtual care and outreach models.
- By September 1, 2020, the Ministry of Health in collaboration with the Ministry of Mental Health and Addictions and the Ministry of Children and Family Development will expand training opportunities for local health professionals when mental health/psychiatric specialists are providing outreach services.

Table of Contents

PREFACE	2
EXECUTIVE SUMMARY	4
INTRODUCTION	7
BC CORONERS SERVICE INVESTIGATIVE FINDINGS	16
Means of Death	16
DEMOGRAPHICS	17
Sex	17
Sexual Orientation	18
Age Group	18
Indigenous Identity	19
Health Authority (HA) of Residence	20
HEALTH AND WELLBEING	21
Mental Health Diagnosis	21
Self-Harming Behaviours, Prior Suicide Attempts or Ideation	21
Personal Life Challenges/ Issues identified	22
SUBSTANCE USE	23
Reported Use of Substances (Alcohol or Illicit Substances)	23
Prescriptions for Mental Health Concerns	24
Medications Taken as Prescribed	25
SERVICE INVOLVEMENT	26
Mental Health Admission to Hospital	26
Contact with Health Care Provider for Mental Health issues	26
RECOMMENDATIONS	28
GLOSSARY	31
APPENDIX A: DEATH REVIEW PANEL	32
APPENDIX B: DRUG PRESCRIBED AND GENERAL USE	33
APPENDIX C: PRIOR PANEL RECOMMENDATIONS	36
APPENDIX D: DATA LIMITATIONS AND CONFIDENTIALITY	39
APPENDIX E: DATA TABLES	40
REFERENCES AND BIBLIOGRAPHY	41

KEY FINDINGS

ALTHOUGH SUICIDE RISK FACTORS ARE UNDERSTOOD, PREDICTING SUICIDE IS VERY DIFFICULT

BARRIERS, BOTH SYSTEMIC AND PERSONAL, EXISTED FOR FAMILIES TO SUCCESSFULLY ENGAGE WITH OR ACCESS SERVICES

A NEED FOR TIMELY ACCESS TO MENTAL HEALTH SUPPORTS AND SERVICES; THIS IS EVEN MORE EVIDENT IN NON-URBAN AREAS

INTRODUCTION

When someone dies by suicide, it is a tragic loss to parents, friends, family and the greater community. Often many persons have questions about what could have been done to prevent the death. Suicide is a complex issue, and the risk for suicide can change with circumstance. What is a risk factor or **protective** factor² for one person may not be the same for another in similar circumstances (McLean, Maxwell, Platt, Harris, & Jepson, 2008). There is no one profile for suicide.

In BC, suicide remains the leading cause of injury-related death among adolescents, and the second leading cause of death after natural disease³. Each year in BC approximately 20 children and youth die by suicide. Many more adolescents continue to report extreme levels of stress and despair. The BC Adolescent Health Survey (2018) of 38,000 students (grades 7-12) found that 11% of adolescent boys and 23% of adolescent girls reported suicidal thoughts (Smith, Forsyth, Poon, Peled, Saewyc, & McCreary Centre Society, 2019).

Protective Factors:

- Strong family supports and connections
- Positive peer and online relationships
- Belongingness to positive group, in person or online
- Good physical health
- Resilience
- Autonomy
- Sense of purpose
- Hope
- Feeling cared for

McClatchey, Murray, Chouliara & Rowat, 2018; Borowsky, Taliaferro & McMorris, 2013

² Bolded terms are defined in the glossary.

³ In any given year between 2013 and 2018, there were approximately 450,000 young people (age 10 and 18 years) living in BC (BC Vital Statistics, 2018). Within this population there were approximately 90 deaths per year; and on average 20 of these were the result of suicide (BC Coroners Service, 2018).

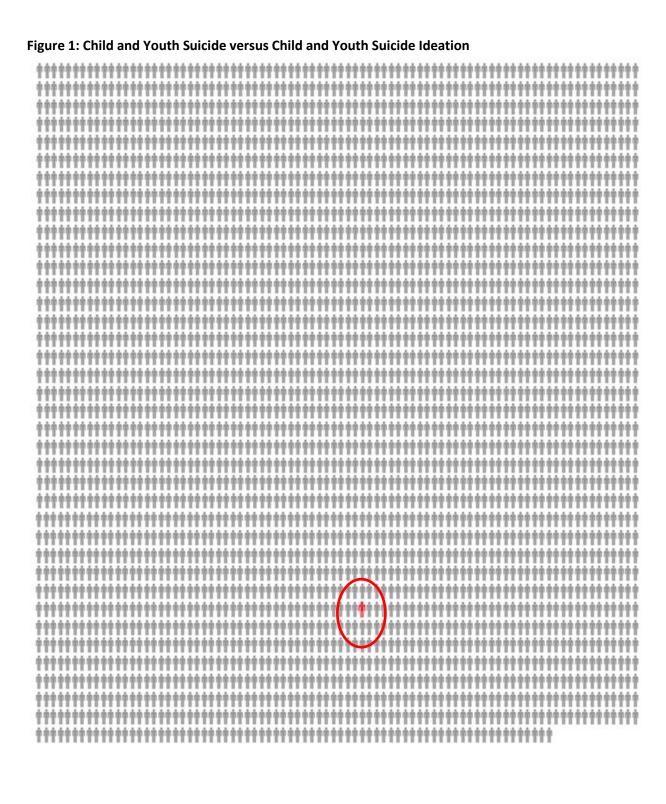
Although there are known risk factors for suicide, the ability to predict a suicide is difficult. Multiple studies show that any combination of risk factors has near-zero predictive value (Belsher et al., 2019). Biological, social, cultural and personal experiences act together to influence an individual's vulnerability to suicide behaviour. Youth, in particular, are even more sensitive to impulsive or unplanned suicidal behaviours. This may be explained by brain development, usually, the areas of the brain responsible for internal control, priority-setting, and planning develop well after the areas responsible for emotional reactions (Johnson, Blum, & Giedd, 2009).

Suicide Risk Factors:

- Lack of support networks, weak family and peer relationships
- Feelings of social isolation
- Living in conditions of family disfunction or discord
- Alcohol and substance use
- Mental health disorders
- Adverse childhood events
- Stigmatizing attitudes toward mental health

As well, motivations for suicide (e.g. hopelessness, repeated disappointments, social isolation, trauma, protecting or punishing others, escaping pressures, loss or life changes) are complex. Understanding the motivation can allow for targeted interventions, or help recognize when simple "safety planning" is not enough.

BC data find that child and adolescent mental health remains an area of concern. For every child and youth in BC who dies of suicide, there are more than 3000 who identify having suicide ideation on a survey (see Figure 1) (Smith, Forsyth, Poon, Peled, Saewyc, & McCreary Centre Society, 2019).



HOW TO HELP SOMEONE AT RISK

1. ASK

2. KEEP THEM SAFE

3. BE THERE

4. HELP THEM CONNECT

5. FOLLOW UP

Prevention Continuum

Given that suicide is very difficult to predict, suicide prevention efforts must include universal approaches to help all youth learn skills for emotional regulation when feelings of sadness or distress become too intense. Suicide prevention includes:

- Understanding and addressing the conditions which cause mental distress, feelings of hopelessness or despair;
- Reducing exposure to adverse experiences in early childhood;
- Promoting connectedness to school and to significant adults, teaching coping and problem solving skills;
- Creating protective, supportive, accepting, and safe environments;
- Reducing stigma and discrimination;
- Restricting means of access (e.g. make it difficult for persons to access poisons, guns or pills, and have safety measures on bridges);
- Ensuring responsible media reporting;
- Offering accessible support for vulnerable children and youth; and,
- Ensuring that those children and youth experiencing a mental health crisis receive timely evidence-based treatment and care.

WHAT CAN WE DO TO PREVENT SUICIDE?

STRENGTHEN ACCESS TO AND DELIVERY OF CARE

CREATE PROTECTIVE ENVIRONMENTS

CONNECT PEOPLE WITH THEIR COMMUNITIES

TEACH ALL YOUNG PEOPLE COPING AND PROBLEM-SOLVING SKILLS

IDENTIFY AND SUPPORT PEOPLE AT RISK

REDUCE EXPOSURE TO ADVERSE EVENTS DURING CHILDHOOD

Suicide prevention programs should be monitored and prior to program implementation:

- Existing mental health resources must have the capacity to respond to and accommodate an increase in help-seeking behaviours or referrals;
- Support is in place for school staff and adults in the community who intervene with or identify youth at risk of suicide;
- Follow up processes are in place for those referred; and
- Youth known to be at risk of suicide are supported and especially monitored when suicide prevention programming is implemented.

Suicide prevention programs need to happen in supportive environments.



Source: Public Health Agency in Canada, 2018

Targeted Treatment

While suicide prevention should include measures for all young people (e.g. education and awareness initiatives), targeted measures are needed for those at greater risk of suicide behaviour, and programs designed for those exhibiting suicidal behaviours, ideation or attempt (Cha et al., 2017; Kuiper, Goldston, Garraza, Walrath, Gould & McKeon, 2018, Calear et al., 2016).

These targeted measures include interventions such as counselling and therapy and, for some, medications. Examples of interventions include:

- Individual and group-based therapies such as cognitive behaviour therapy (CBT), dialectical behaviour therapy (DBT), and problem solving therapy (PST); interpersonal psychotherapy (IPT), or mentalization-based therapy (MBT);
- Family oriented interventions which address family dynamics; and,
- Pharmacotherapy.

Systematic reviews examining the risks and benefits of antidepressant medications consistently highlight the potentially serious consequences of untreated depression in children and adolescents (Hetrick, McKenzie, Cox, Simmons & Merry, 2012).

Throughout the world, many physicians use medications for children for which there is no, or sometimes even negative evidence of benefit (Zito, Derivan, Kratochvil, Safer, Fegert & Greenhill, 2008). For example, despite the lack of evidence of efficacy in youth, and a high side effect profile, recent international evidence suggests second generation antipsychotics are routinely prescribed for ADHD and depression

A Simon Fraser University (2017) review of randomized controlled trials evaluating childhood depression treatment found strong evidence for six policy and practice approaches:

- 1. Make cognitive behavioural therapy (CBT) available to all children with depression.
- 2. Practice in ways that encourage children to complete treatement.
- 3. Consider self-directed CBT for lower-risk youth.
- 4. Use the most effective medications.
- 5. If medication is prescribed, monitor outcomes and side-effects.
- 6. When medication is prescribed, offer CBT.

Schwartz, Waddell, Andres, Yung, Barican & Gray-Grant, 2017

(Edelsohn, Karpov, Parthasarathy, Hutchison, Castelnovo, Ghuman, & Schuster, 2017; Ray, Stein, Murray, Fuchs, Patrick, Daugherty, & Cooper, 2019).

Off-label use of medications for children and adolescents is a common and important issue for prescribing practice (Sharma, Arango, Coghill, Gringas, Nutt, Pratt, Young & Hollis (2016). Off-label use is when a doctor prescribes a medication even though it is not approved for the specific mental disorder that is being treated or for use by persons outside the approved age group. "The majority of psychotropic drugs are not formally approved for use in children and adolescents, and use is often off-label" (Nielsen, Rasmussen, Hellfritzsch, Thomsen, Norgaard & Larsen, 2016, p. 360).

There is agreement in the literature that it is important to monitor the use of antidepressants in children and youth, because of possible side effects from the medications. To support practitioners working with youth, health care providers need accessible child and youth mental health guidelines for treatment and care. This includes access to evidence-based prescribing guidelines.

The Previous BCCS Panel Report and New Findings

This panel compared current findings (2013-2018) to those of a previous review Child Death Review
Panel report (2008-2012). The previous panel identified that effective, timely and appropriate matching of services to the unique needs of individual children and youth are imperative to addressing suicide risk in young people. The earlier panel identified the following key areas as requiring immediate action for children and youth identified as being at risk for suicide: coordination of service providers, access to services, and child and youth engagement (see Appendix C). This 2018 panel found that these factors continue to be an issue. In addition, the 2018 panel reviewed new toxicology findings and information about prescribing practices for those children and youth with medications for mental health concerns. The results of the medication review provided new insight and informed key recommendations in this report.

BC CORONERS SERVICE INVESTIGATIVE FINDINGS

For the period of January 1, 2013 to June 30, 2018, there were 111 suicide deaths among children and youth age 10 to 18 years of age (see Appendix E, Table 1). This represents an annual average of 19 child and youth suicide deaths. These 111 deaths represent 21% of all child and youth deaths.

These findings are similar to that of the 2008-2012 child and youth suicide death review. In 2008-2012 there was an annual average of 18 child and youth suicide deaths.

In BC, other than a small dip in the mid-to late- 2000's, the number of child and youth suicides has remained stable over the last 20 years with an average of 19 deaths per year over that period (see Figure 2).

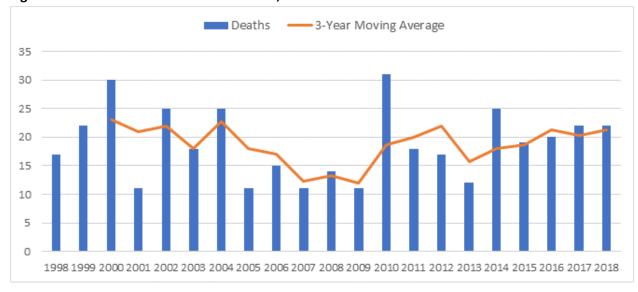


Figure 2: Child & Youth Suicide Deaths in BC, 1998-2018

The latest Canadian Census data (2016) found that the BC rate for child and youth suicide (age 10-19 years) was slightly lower than the rate of their Canadian peers (5.7 per 100,000 versus 5.9 per 100,000 respectively) BC Coroners Service, 2018, Statistics Canada (2018).

Means of Death

Of the children and youth who died by suicide, hanging was the most common means followed by firearm use and jumping from a height. The means of death were similar to the earlier review (2008-2012); there was no significant difference when comparing the 2008-2012 to the 2013-2018 findings. When combined with other factors influencing suicidal behaviour, access to a means of suicide can increase risk of death by suicide (Sarchiapone, Mandelli, Iosue, Andrisano, & Roy, 2011).

DEMOGRAPHICS

Sex

In this review, three times more males died by suicide than females.

• 76% of decedents were males and 24% of decedents were females (see Appendix E, Table 2).

In 2013 to 2017 the suicide rate among male children and youth was 6.3 per 100,000, and for female children and youth the rate was 2.3 per 100,000.

Data from 2008-2012 that found 65% of child and youth suicides were males and 35% of child and youth suicides were females.

These findings are similar to the literature which finds that more adolescent males die by suicide than adolescent females. Research however finds that adolescent females have higher rates of suicide ideation (Goebert, Hamagami, Hishinuma, Chung-do, & Sugimoto-Matsuda, 2018) and self-reported suicide attempts (Smith, Forsyth, Poon, Peled, Saewyc, & McCreary Centre Society, 2019).

Statistics Canada data finds that the suicide rate for females 10-19 years of age has steadily increased from 3.6 deaths per 100,000 persons in 2008 to 5.0 deaths per 100,000 in 2016. Suicide rates for males 10-19 years of age has declined over the same period from 7.1 deaths per 100,000 in 2008 to 6.6 deaths per 100,000 in 2016 (Statistics Canada, 2019). In contrast, from the previous review panel report (2008-2012), the rates of youth male suicides in BC has increased from 4.9 per 100,000 to 6.3 per 100,000 and the rates of females suicides has declined from 2.9 per 100,000 to 2.3 per 100,000. The change in rate from the previous report for both males and females was not statistically significant.

Sexual Orientation

The previous death review panel on youth suicides recommended that coroners collect sexual orientation information for all youth suicides. The updated BCCS child death investigation protocol asks whether sexual orientation was identified as an issue/stressor related to the suicide.

In reviewing the protocol information:

- Some children and youth may not have identified their sexual orientation.
- The information is based on parent/peer/service provider response and may be inaccurate.

In this review:

- 53% of the children and youth who died were identified as heterosexual;
- 5% of youth identified as lesbian, gay, bisexual or transgender (LGBT);
- Among 15 youth there were no issues identified⁴ for sexual orientation; and,
- 31 children and youth investigative notes did not include sexual orientation information.

Population-based research including data from BC indicates that lesbian, gay, and bisexual youth have higher rates of suicidal ideation and attempts than their heterosexual peers (Peter, Edkins, Watson, Adjei, Homma & Saewyc, 2017). In addition, research in BC has shown transgender adolescents have five times the risk of suicidal thoughts and attempts as cisgender peers their age (Veale, Watson, Peter, & Saewyc, 2017).

Age Group

This review found more suicide deaths occurred among older adolescents:

- 86% (n=95) of suicides occurred among youth 15-18 years; and,
- 14% (n=16) of suicides occurred among children 10-14 years (see Appendix E, Table 3).

The proportion of youth suicides was not significantly different between this cohort and the previous cohort (2008-2012 versus 2013-2018).

⁴ sexual orientation was assessed but was not considered relevant to death.

Indigenous Identity

This review found that Indigenous children and youth were disproportionately represented among suicide deaths based on the proportion of Indigenous children and youth in the population. Indigenous youth may experience greater challenges due to the impact of historical trauma and current experiences that wear down their resiliency and ability to cope.



- 23% of suicide deaths were among Indigenous children and youth.
- There were 20 male deaths and 6 female deaths among Indigenous children and youth. The proportion of male deaths was not significantly different than the proportion of male deaths among non-Indigenous children and youth.
- This review found that the types of personal challenges identified differed between Indigenous and non-Indigenous children and youth. Key differences identified were related to Indigenous youth experiencing childhood trauma, or deaths among family members.

There was no significant difference in the proportion of Indigenous suicide deaths for the 2008-2012 and 2013-2018 cohorts.

In BC, to acknowledge and to help address challenges faced by Indigenous peoples, the provincial government expressed its commitment to renewing its relationship with Indigenous peoples, and it has developed draft principles to guide the Province's renewed relationship with Indigenous peoples. These principles are informed by the United Nations Declaration of the Rights of Indigenous Peoples and the Truth and Reconciliation Commission Calls to Action. "BC's principles are about renewing the Crown-Indigenous relationship. They are an important starting point to move away from the status quo and to empower the Province to fundamentally change its relationship with Indigenous peoples, a process that will take time and call for innovative thinking and action." "This includes engaging with Indigenous

Aboriginal peoples' experiences are rooted in multigenerational, cumulative and chronic trauma, injustices and oppression. The effects of trauma can reverberate through individuals, families, communities and entire populations, resulting in a legacy of physical, psychological and economic disparities that persist across generations. (National Collaborating Centre for Aboriginal Health, 2016)

communities when creating new policies and programs, reviewing services to make sure they are delivered in culturally intelligent ways, and renewing fiscal relationships in ways that help further Indigenous communities' right to self-determination" (Government of BC, 2018).

To best support Indigenous communities, traumainformed practice is essential when interacting with individuals and communities experiencing ongoing and historical trauma. Trauma-informed practice recognizes and acknowledges the impact of trauma and the need for awareness and sensitivity to its dynamics in all aspects of service delivery.

Health Authority (HA) of Residence

Interior Health (n=33) had the highest number of child and youth suicide deaths, then Fraser Health (n=29), Island Health (n=22) and then Vancouver Coastal Health (VCH) (n=16). Northern Health Authority had the fewest number of child and youth suicides (n=11) (see Table 4).

The Interior Health Authority had almost two times the rate of child and youth suicides as compared to the BC rate (8.3 per 100,000 vs 4.3 per 100,000 person years respectively).

Table 4: Number/Rates* of Suicides by HA of Residence (January 1, 2013 – June 30, 2018)						
Fraser Interior Island Northern Vancouver B						ВС
	riasei iliteiloi	isiaiiu	Northern	Coastal	Total	
Total Number of Deaths	29	33	22	11	16	111
Rate per 100,000 person years 2.7 8.3 6.1 6.4 2.9 4						4.3
(2013-2017*)						

In comparison with Fraser HA rate, the Interior, Island, and Northern HA rates were significantly higher.

Literature finds that suicide rates are higher among youth living in rural areas than youth living in urban areas (McKean et al., 2018).

Mental Health Diagnosis

This review found that among the children and youth who died by suicide:

- 63 (57%) had a diagnosed mental health condition;
- 24 (22%) had no diagnosed mental health condition, but had an anecdotal report of a mental health concern (e.g. depression, anxiety, or stress); and,
- 24 (22%) had no diagnosed mental health condition and no anecdotal report of a mental health concern.

Of the 63 children and youth with a diagnosed mental health condition, 31 decedents had more than one mental health disorder diagnosed (see Table 5).

Table 5: Mental Health Disorders*			
	# with Disorder		
Mood Disorders	40		
Disorders of Behaviour	24		
Anxiety Disorder	20		
Other	16		
Personality Disorders	6		
Psychosis	5		
No mental health diagnosis	48		

Data from 2008-2012 found 39% children and youth who died by suicide had a mental health diagnosis.

This review (2013-2018) found that 57% of children and youth who died by suicide had a mental health diagnosis.

(*see glossary for list of diagnosed conditions)

Self-Harming Behaviours, Prior Suicide Attempts or Ideation

This review found that 44% (n=49) of the children and youth who died by suicide had a history of self-harm (e.g. cutting, head banging, eating disorder etc.).

During the Coroner's investigation, information was obtained from family, friends and medical records about prior suicide attempts or ideation. Of the 111 adolescents who died:

- 42 had no prior ideation or attempt;
- 29 had prior ideation;
- 39 had prior attempt; and
- One adolescent, the history of prior ideation or attempt was unknown.

This suggests that 71 children and youth (64%) died on their first known suicide attempt.

Data for 2008-2012 found that among children and youth who died by suicide 41% had a history of suicide attempts and 57% had suicide ideation.

Personal Life Challenges/ Issues Identified

In this review, BCCS investigative notes indicated that almost all children and youth who died by suicide were reported to have experienced personal stressors. For some decedents family and friends reported that there were no significant stressors, whereas for others the personal challenges were multiple and extensive.

Relationship difficulties (e.g. recent breakups, fights with peers, being bullied, family conflicts) were noted in 72 deaths. School issues (e.g. failing grades, learning difficulties, not graduating) were reported as stressors among 35 children and youth. For 30 children and youth who died, childhood trauma was identified. Legal issues were identified for 14 decedents.

The previous child death review panel identified that coroners should identify whether a decedent was experiencing past or current bullying.

The graphic to the right includes current and historical events and were noted as stressors within the context of the child's life.

Data for 2008-2012 found that 13% of children and youth who died by suicide experienced bullying. This current review found that 12% of decedents experienced bullying.

PERSONAL CHALLENGES IDENTIFIED IN INVESTIGATIONS RELATIONSHIP ISSUES WERE PRESENT IN 2/3 OF YOUTH SUICIDES TOP STRESSORS IDENTIFIED IN CORONER YOUTH SUICIDE INVESTIGATIONS **RELATIONSHIP ISSUES** 65% **EDUCATIONAL ISSUES** 32% CHILDHOOD TRAUMA 27% **LEGAL ISSUES** 13% **DEATH/SUICIDE OF** 13% FAMILY/FRIENDS 12% EXPERIENCED BULLYING 9% **HEALTH CONDITIONS** *SOME CHILREN AND YOUTH IDENTIFIED MULTIPLE STRESSORS

SUBSTANCE USE

Reported Use of Substances (Alcohol or Illicit Substances)

Investigative notes indicated that:

- More than half (51%)(n=57) of children and youth had a history of substance use (alcohol, cannabis, cocaine, methamphetamines, MDMA, or ecstasy);
- 50 (45%) had no history of substance use; and,
- Four had an unknown history of substance use.

Data for 2008-2012 found that 38% of children and youth who died by suicide had a history of psychoactive substance use or were under the influence of a substance at the time of death. 2008-2012 data does not compare well to 2013-2018 data because of changes to toxicology testing criteria resulting from a recommendation in the 2013 panel report

Substances (alcohol or illicit substances) found on Toxicology Testing

The previous child death review panel identified that coroners must complete toxicology testing for all child and youth suicide deaths.

In this review, toxicology testing was completed for 101 (91%) of the children and youth. Of those with toxicology testing:

- 59% (n=60) decedents had no alcohol or illicit substances found on toxicology testing; and,
- 41% (n=41) decedents had alcohol or illicit substances found on toxicology testing.

Interaction of substance use (alcohol, illicit substances, other medications)

Evidence indicates that alcohol and illicit substances may cause worsening mental health symptoms or alter the effectiveness of psychiatric medications. Many substances including alcohol reduce self-control and increase impulsivity, which can significantly increase the risk of death by suicide.

Prescriptions for Mental Health Concerns

The previous child death review panel identified that coroners must obtain PharmaNet records for all child and youth suicide deaths.

In this review, PharmaNet records were obtained for 77 decedents (69%). Among the 34 children and youth without PharmaNet records on file, investigative notes indicated that no medications were prescribed based on physician and/or family report.

In this review, 39 children and youth had psychiatric medications prescribed within 14 months of death. Of these, 34 children and youth had a prescription for medications on the month of death. This finding is not intended to suggest that medications lead to the death; psychiatric medications are often prescribed as mental health deteriorates or as issues become more problematic.

Following Prescribing Guidelines

Of the 39 child and youth with medications prescribed for psychiatric conditions:

- Almost three-fourths (n=28) were prescribed medications that followed recommended prescribing guidelines;
- Three (8%) were prescribed medications that followed some recommended prescribing guidelines; and,
- One in five (n=8) were prescribed psychiatric medications that did not follow prescribing guidelines (see Table 6).

Of the eight decedents with prescriptions that did not follow prescribing guidelines:

- Three youth with a diagnosis of a major depressive disorder were not prescribed selective serotonin reuptake inhibitors (SSRIs) or had no evidence of previous trial of SSRI. Guidelines indicate SSRIs as the evidence-based first line recommendation for treatment of depression;
- Four youth did not have their medications dose increased or switched when experiencing
 worsening symptoms. Guidelines suggest switching to another SSRI at no more than six weeks of
 non-response. Guidelines recommend trials of 4-6 weeks for effect; and,
- One youth was prescribed a medication not approved for use in children.

Table 6: Number of Children and Youth with Psychiatric Medications (n=39)			
	# Following Prescribing Guidelines		
Yes	28		
Somewhat	3		
No	8		
Unknown	0		

Off-Label Use of Drugs

Of the 39 child and youth with medications prescribed for psychiatric conditions, 16 (41%) were prescribed medications that were considered "off-label⁵" use (see Table 7).

Similar to the literature, concerns identified in the use of off-label medications include:

- Inappropriate for the reason prescribed (n=10) (e.g. guidelines strongly contraindicates the use of quetiapine to manage sleep problems or anxiety among youth);
- Insufficient evidence, no evidence, or negative evidence for use in children and youth (n=5); and,
- Inappropriate medication given diagnosis and risk of polypharmacy (n=1).

Table 7: Off-label Use of Medications for Psychiatric Disorders (n=39)		
Number of Children and Youth		
Off-label Use 16		
No Off-label Use 23		

Medications Taken as Prescribed

Toxicology results were reviewed for 39 children and youth who were prescribed psychiatric medications within 14 months of their death. Of these, 36 children and youth had a prescription for mental health conditions at the time of death (see Table 8).

- Over half (n=20) of the children and youth were taking their medications (e.g. toxicology showed medication within therapeutic levels);
- 17% (n=6) of the children and youth were not taking their medications as prescribed (e.g. stopped taking medications (n=3), toxicology negative (n=2), toxicology positive and medication was above a therapeutic range (n=1)); and,
- It was unknown if medications were taken as prescribed for over one quarter (n=10) of the children and youth (e.g. toxicology testing not done, short medication half-life, or possible low dosing).

Toxicology findings must be interpreted with caution as findings could be the result of someone not taking the correct dose or it could also be a result of post mortem redistribution.

Table 8: Number of Children and Youth Taking Psychiatric Medications as Prescribed at time of death (n=36)		
Toxicological evidence that medication was taken as prescribed 20		
No Toxicological evidence that medication was taken as prescribed 6		
Unknown 10		

⁵ Please note: off label use is recognized practice by psychiatric organizations. Some drugs (considered off-label in Canada) have been approved for use in children by other jurisdictions (e.g. FDA or Europe).

Mental Health Admission to Hospital

Forty-six of the children and youth who died by suicide (41%) had a history of a prior admission to a hospital or were seen in a hospital emergency department for mental health concerns.

• Four were in-patients at a hospital at the time of the suicide.

Of the 46 with past hospital involvement all but two had a history of suicide ideation (n=13) or suicide attempt (n=31).

Contact with Health Care Provider for Mental Health issues

In this review:

- 58 had no contact with a health care provider in the past year for a mental health issue;
- 51 had contact with a health care provider in the past year for a mental health issues; and,
- It was unknown if there was contact for two persons.

Records indicate that 79 of the children and youth who died had contact with a health care provider within a year of their death for any reason.

MCFD Involvement (n=60)

In this review, more than half (54%) of the children and youth who died were receiving MCFD services within the year prior to their death. Some children and youth who died were receiving multiple services:

- 12 were children in care (CIC);
- Two others had recent involvement of Voluntary Care Agreements;
- One decedent was on a Youth Agreement and 1 other was referred for a Youth Agreement;
- 38 decedents were receiving or had been referred to Child Youth Mental Health (CYMH);
- 18 decedents had been seen for Family Services; and,
- Four children were receiving services through Child Youth Special Needs (CYSN).

History of Therapeutic Services (1-2 years of death)

Of the 68 children and youth with a history of therapeutic services within 1-2 years of death:

- 35 had a history of Child Youth Mental Health (CYMH) services in combination with other services or care provider (e.g. youth worker, physician, psychiatry, youth justice, counselling);
- 33 had no CYMH but had a history of contact with counselling services (n=16), family physician (n=7), social worker (n=3), psychologist (n=2), and/or a psychiatrist (n=7); and,
- 43 had no history of services for a mental health concern (see Table 9).

Table 9: History of Therapeutic Services (1-2 years of death)					
	With MH Diagnosis Anecdotal MH No MH concerns (63) concerns (24) (24)				
Therapeutic Services	53	12	3	68	
No Services	10	10 12 21			

Accessing Mental Health Services at Time of Death

This review found that 47 children and youth were accessing mental health supports and services at the time of death:

- 37 children and youth with a mental health diagnosis were accessing services;
- Nine children and youth with an anecdotal mental health concern were accessing services; and,
- One youth with school issues/anger issues was accessing services at time of death.

Table 10: History of Therapeutic Services				
	With MH Diagnosis (63)	Anecdotal MH concerns (24)	No MH concerns (24)	Total
Currently Accessing Services at time of death	37	9	1	47

Barriers to service

This review identified that 36 children and youth experienced barriers to services that prevented access, participation or engagement with services. Some were waitlisted for services (n=9), others experienced personal barriers where there was a reluctance to accept services or participate (n=22).

Barriers identified in investigative notes were:

- Waitlisted for services (n=9);
- Services discontinued based on place of residence or considered no longer needed (n=2);
- Child or youth declined referral, or did not wish to participate (n=15);
- Parent cancelled services/ declined services (n=7); or,
- No bed or service available, or deemed appropriate (n=3)

Some children and youth who experienced barriers to mental health services had continued contact with a physician, youth worker or other counsellor.

RECOMMENDATIONS

This death review panel has developed a set of recommendations considering the BCCS investigative findings, current research and the subject matter expertise of the panel members. The recommendations arising from the death review panel were developed in a manner that was:

- Collaborative;
- Attributable to the deaths being reviewed;
- Focused on identifying opportunities for improving public safety and prevention of future deaths;
- Targeted to specific parties;
- Realistically and reasonably implementable; and,
- Measurable.

This review builds on the earlier work of the 2008-2012 youth suicide panel which included recommendations for improved service coordination, access to mental health services, and BCCS policy and practice (see Appendix C). It further builds upon recommendations from previous youth panels dealing with youth overdose deaths, the deaths of Indigenous youth and youth transitioning out of government care. These reports can be found at https://www2.gov.bc.ca/gov/content/life-events/death/coroners-service/child-death-review/reports-publications

The actions in the recommendations below are intended to align with the provincial government's commitment to a renewed relationship with Indigenous Peoples.

The panel identified the following areas to reduce the deaths and improve public safety.

Tools and skills for mental well-being

BC data finds that child and adolescent mental health remains an area of concern. The BC Adolescent Health Survey (2018) of 38,000 students (grades 7-12) found that 11% of adolescent boys and 23% of adolescent girls reported suicidal thoughts (Smith, Forsyth, Poon, Peled, Saewyc & McCreary Centre Society, 2019). Although there are known risk factors for suicide, the ability to predict suicide is difficult. Biological, social, cultural and personal experiences act together to influence an individual's vulnerability to suicide behaviour.

To support mental well-being and prevent suicide the panel recommends that all young people need the tools, skills and supports to deal with transitory and ongoing life challenges or work through times of distress, (for example, self-directed cognitive behavioural therapy like approaches). Providing skills, tools and supports for all youth may also help reduce stigma and improve awareness of mental health services. This may reduce:

• stigma barriers, in the form of public, perceived, or self-stigmatizing attitudes toward suicide, mental illness and mental healthcare;

- psychological barriers, including lack of emotional competence, poor emotional expression, or excessive self-reliance; and,
- beliefs about care providers, encompassing concerns about confidentiality, trustworthiness, or competence.

Almost 70% of serious mental health issues emerge before the age of 25. Programs directed at children in schools are therefore very important.

Recommendation 1

Adopt mental well-being strategies as part of social emotional learning for students

 By September 1, 2020, the Ministry of Education in collaboration with the Ministry of Mental Health and Addictions and the Ministry of Health will enhance social emotional learning curriculum to foster mental health literacy and mental well-being coping skills from K-12.

Accessible Guidelines

This review found that information about recommended treatment or medications guidelines is not easily accessible. Although prescribing guidelines for psychiatric medications can be found on multiple internet sites, they can be difficult to access and discern the best practice. A lack of clear guidelines means that physicians may use a less effective medication, prescribe a medication not formally approved for use in children and adolescents, or use a medication to treat a condition for which it is not approved (off-label use).

In this review, of the 39 children and youth with medications prescribed for psychiatric conditions:

- One in five (n=8) were prescribed psychiatric medications that did not follow prescribing guidelines; and,
- 16 (41%) were prescribed medications that were considered "off-label" use.

To assess prescribing practices, the panel identified the usefulness of reviewing PharmaNet records for all children and youth being treated for mental health conditions to evaluate best practice prescribing guidelines.

Recommendation 2

Identify and distribute provincial best practice youth mental health guidelines

- By September 1, 2020, the Ministry of Mental Health and Addictions in collaboration with the Ministry of Health and Ministry of Children and Family Development will identify and distribute best practice guidelines for matching best practice therapies with youth mental health diagnoses.
- By September 1, 2020, the Ministry of Health in collaboration with relevant stakeholders will identify and distribute best practice psychiatric medication guidelines for young people.
- By September 1, 2020, the Ministry of Health in collaboration with relevant stakeholders will
 review current psychiatric medication prescribing practices to determine if the prescribing
 practices identified in this report are reflective of psychiatric medication prescribing practices
 for children in general.

Youth Mental Health Services in Rural Areas

This review found higher rates of youth suicide for residents of Interior, Island, and Northern Health Authorities. Living in rural areas presents some unique challenges to providing appropriate access to mental health care. These challenges include geographic remoteness, long distances, less availability of other providers, access to safe, affordable and reliable transportation and inclement weather conditions. Expanding access to appropriate mental health services for children and youth has been identified as a key need. The *BC's Mental Health and Substance Use Strategy* identifies that those living in rural or remote communities should be better served through more flexible outreach services, including teleconferencing, videoconferencing, and online supports and services.

Recommendation 3

Expand specialty youth mental health and psychiatric services to non-urban areas through outreach models

- By September 1, 2020, the Ministry of Mental Health and Addictions in collaboration with the Ministry of Health and the Ministry of Children and Family Development improve access to specialty youth mental health and psychiatric services to non-urban areas through telehealth/virtual care and outreach models.
- By September 1, 2020, the Ministry of Health in collaboration with the Ministry of Mental Health and Addictions and the Ministry of Children and Family Development will expand training opportunities for local health professionals when mental health/psychiatric specialists are providing outreach services.

Anxiety Disorder: include Anxiety Disorder and Obsessive Compulsive Disorder.

Bullying: a pattern of repeated aggressive behaviour, with negative intent, directed from one child to another where is a power imbalance. This aggressive behaviour includes physical or verbal behaviour, and is an intentional and purposeful act meant to inflict injury or discomfort on the other person (Ministry of Education and the Ministry of Attorney General, 1999, p6).

Disorders of Behaviour: include Attention Deficit Hyperactive Disorder, Oppositional Defiant Disorder, or Conduct Disorder.

Mood Disorders: include Depressive Disorder, Bipolar Disorder, and Mood Disorder.

Off-label use is when a doctor prescribes a medication even though it is not approved for the specific mental disorder that is being treated or for use by persons under a certain age.

Oppositional defiant disorder (ODD): a behavioral **disorder** defined by chronic aggression, frequent outbursts, and a tendency to ignore requests and purposely irritate others.

Other: include Autism Spectrum Disorder, Adjustment Disorder, Eating Disorders, and Attachment Disorder.

Personality Disorders: include Borderline Personality Disorder, and Schizoid Personality Disorder.

Prescribing Guidelines are dependent on the disorder.

- For ADHD see Canadian ADHD Resource Alliance (CADDRA);
- For anxiety disorders see the National Institute for Health and Care Excellence (<u>NICE UK</u>) or Canadian Network for Mood and Anxiety Treatments <u>CANMAT</u>;
- For psychosis disorders see the Canadian Academy of Child & Adolescent Psychiatry (<u>CACAP</u>)
 and American Academy of Child & Adolescent Psychiatry (<u>AACAP</u>); and,
- <u>uptodate.com</u>, a website most doctors use, has a section on pediatric conditions that could be followed.

Protective factors for suicide behaviours include: perceptions and realization of hope, optimistic outlook, and the existence of social connections and support such as family, friends, extended family, schools, and community. Protective factors may buffer individuals from suicidal thoughts and behaviours or offset factors that wear away at a person's resilience.

Psychosis: includes psychosis and schizophrenic disorders.

As well, the BC Ministry of Health has <u>guidelines</u> for the diagnosis and treatment of anxiety and depression in children and youth.

APPENDIX A: DEATH REVIEW PANEL

A death review panel is mandated⁶ to review and analyze the facts and circumstances of deaths to provide the chief coroner with advice on medical, legal, social welfare and other matters concerning public health and safety and prevention of deaths.

A death review panel may review one or more deaths before, during or after a coroner's investigation, or inquest.

Panel members were appointed by the chief coroner under Section 49 of the <u>Coroners Act</u>, including professionals with expertise in youth services, child welfare, mental health, addictions, medicine, nursing, public health, Indigenous health, injury prevention, education, income support, law enforcement and health research.

Regardless of their employment or other affiliations, individual panel members were asked to exercise their mandate under the *Coroners Act* and express their personal knowledge and professional expertise. The findings and recommendations contained in this report need not reflect, or be consistent with, the policies or official position of any other organization.

In the course of reviewing deaths of youth transitioning from government services, the panel reviewed:

- BCCS investigative findings;
- Information provided by panel members;
- Environmental, social and medical factors associated with the deaths;
- Possible trends or themes;
- The current state of related public policy and strategies; and,
- Existing challenges.

The panel collectively identified actions for improving public health prevention processes with respect to suicide deaths among youth.

_

⁶ Under the *Coroners Act*

APPENDIX B: DRUG PRESCRIBED AND GENERAL USE

The drugs listed in Table 11 below are those commonly prescribed in BC to youth with mental health conditions. This review identified that many of these medications were either prescribed or found on toxicology testing.

Classification	ly used Agents in BC Agent	Notes
Atypical	Quetiapine (Seroquel)	Atypical antipsychotics have prolific non-indicated uses
Antipsychotics	Risperidone (Risperidal)	despite there being warnings against their overuse.
Antipsychotics	Olanzapine (Zyprexa)	They are associated with weight gain, diabetes,
	, , , , ,	,
	Aripiprazole (Abilify)	movement disorders, and other major side effects. Guidance from national and international Child
		Psychiatric Organizations suggests they only be used
		for Schizophrenia, Bipolar Disorder, Aggression within
		Autism, Tourette's Disorder, and formally-diagnosed
		Conduct Disorder. They should NOT be used as a sleep
		aid, or an anxiety aid, or for first line treatment of
		depression or personality disorders/issues.
Selective	Citalopram (Celexa)	These medications are the first line medications for
Serotonin	Escitalopram (Cipralex)	SSRIs, and specifically, fluoxetine and escitalopram are
Reuptake	Fluoxetine (Prozac)	evidence-based, first line treatments for severe
Inhibiters (SSRIs)	Fluvoxamine (Luvox)	pediatric depression.
	Paroxetine (Paxil)	For depression, Fluoxetine (1st line) and Escitalopram
	Sertraline (Zoloft)	(2 nd line) have convincing evidence. In BC, there is a
		problematic issue where general practitioners,
		pediatricians, and psychiatrists treat first-line
		depression with medications other than these two,
		going against every guideline.
		For anxiety, all SSRIs have excellent evidence. To
		repeat from the above discussion on antipsychotics,
		antipsychotics like quetiapine have no role to play in
		the management of anxiety, short-term or long-term.
		Please note that Paroxetine is rarely used in children
1		due to its high propensity of agitation as a side effect.

Other	Venlafaxine (Effexor)	Though these medications have various indications in
mechanisms for	Desvenlafaxine (Pristiq)	adults for depression and anxiety, they are not first line
Anti-anxiety or	Mirtazapine (Remeron)	treatments for depression in youth, and in many cases,
Anti-depression	Duloxetine (Cymbalta)	have negative studies showing that they do not work in
·	Vortioxetine (Trintellix)	youth. They should be used only as second or third line
	Amitriptyline (Elavil)	agent and consultation with a psychiatrist is
		recommended.
Benzodiazepines	Lorazepam (Ativan) Clonazepam (Klonopin) Alprazolam (Xanax) Diazepam (Valium)	Lorazepam and Clonazepam are excellent short-term anti-anxiety and anti-seizure medications that are only intended for short term, as-needed use and their ongoing use is problematic. They should always be started with the goal of stopping them, and replacing them with a curative/management strategy.
		Alprazolam, Lorazepam Temazepam and Oxazepam can be used for the short term treatment of disabling insomnia.
		However, due to their high abuse potential, the use of all benzodiazepines for all-but-emergency sleep, anxiety, and seizure indications is highly discouraged.
Other sleep	Trazodone (Desyrel)	Trazodone is an antidepressant with sleep-inducing
medications	Zopiclone (Imovane)	effects. It can be used off-label at small doses
	Melatonin	specifically for this sedating side effect of anxiety. It has
		no evidence for use as an antidepressant in youth. It
		has less abuse potential than the benzodiazepines or
		zopiclone.
		Zopiclone is used in the treatment of insomnia. Recent guidance and health warnings indicate that no more than 3.75mg should be used in youth, and there is emerging evidence that there is abuse potential and tolerance issues as well.
		Melatonin is an over-the-the counter, safe medication
		that is effective in inducing sleep in some people. It
		should be considered a first line option for youth with
		sleep difficulties, as it has a very tolerable side effect
		profile, almost no abuse potential, and is safe even in overdose.
		*Note: behavioral treatments for sleep in youth are
		superior to all medical options*

Other	ADHD:	Biphentin, Concerta, Atomoxetine, Vyvanse – used to
medications seen	Methylphenidate-based	treat the symptoms of Attention Deficit-Hyperactivity
in this review.	(Ritalin, Biphentin,	Disorder. Canadian physicians are strongly urged to
	Concerta)	follow the CADDRA guidelines for ADHD diagnosis and
	Amphetamine Based (Dexedrine, Vyvanse) Novel: Atomoxetine	management (CADDRA.ca). Vyvanse , specifically, is a stimulant medication for ADHD that has a very low abuse potential, and should be considered in individuals who may be at risk for misuse or diversion.
	Others: Chlorpheniramine Pseudoephedrine	Chlorpheniramine is an antihistamine used for symptoms of allergic conditions. However, it has many properties similar to SSRI medications (above), and it has gained off-label use in sleep and anxiety, despite low evidence. It is not first line for any psychiatric condition.
		Pseudoephedrine used as a nasal/sinus decongestant, or as a stimulant. It can be diverted in making amphetamine derivatives (like "meth"), and can be abused as a stimulant.

Source: Death Review Panel member child and adolescent psychiatrist Dr. Tyler Black, Director of the Child and Adolescent Psychiatric Emergency Unit at BC Children's Hospital

APPENDIX C: PRIOR PANEL RECOMMENDATIONS

In September 2013, the BCCS DRP released the report of child and youth suicides (2008-2012). The report included the following three recommendations.

Recommendation #1 and Agency Response: Service Coordination

Action	Status	Status Notes
School Districts (SD) and partners develop community level risk assessment protocols in support of early intervention and prevention of harmful behaviours including appropriate information sharing among agencies and proactive follow-up with young people and their families.	Complete	November 2013, ERASE strategy implementation commenced and Violence Threat Assessment community protocols http://www.erasebullying.ca/policy/policy.php
The BC provincial government and SD continue to ensure local front-line staff are provided with education on supporting the mental health and well-being of children and youth.	Ongoing	ERASE training was implemented in 2013 and has been expanded to address complex issues including mental health and wellness, substance use, social media, sexual orientation and gender identity and gangs and gun violence prevention. Accomplishments include: Training for educators, community partners and parents on topics like social media, threat assessment and trauma response (more than 18,000 educators and community partners have participated in over 280 training sessions) Provincial guidelines for threat assessments and stronger codes of conduct for schools An anonymous online reporting tool to help students feel comfortable about reaching out for help (more than 1,200 incidents have been reported using this tool) Dedicated safe school coordinators in every school district have the skills and community connections to respond to potentially violent situations or bullying A provincial team of subject matter experts that acts as an advisory committee and provides direct support to school districts and independent schools

Recommendation #2 and Agency Response: Access to child and youth mental health services

Action	Status	Status Notes
Ministry of Children and Family Development (MCFD) in partnership with Ministry of Health (MOH), Health Authorities (HAs) identify barriers to: • accessing mental health, • transitioning between community mental health and acute hospital services; and, • transitioning from child and youth to adult mental health services.	Ongoing	 MCFD, MOH and MEd continue to work together and with HAs, service providers and family representatives to identify and address access barriers, and streamline transitions. Examples of progress include: Development of a provincial MCFD/MOH/HA protocol to support flexible, responsive transitions from Child and Youth Mental Health (CYMH) Services to Adult Mental Health Services that is currently being implemented across BC. Development of a protocol to support smooth transitions between community and hospital services (to be implemented in 2016) Expansion of the new youth and family friendly CYMH intake clinic model to a total of 78 clinics in 70 communities across the province.
Map MCFD and contracted agency mental health services and service levels across the province and make the information easily accessible and publicly available.	Complete	An online service inventory and Google style map format that identifies key MCFD, HA and contracted agency mental health and substance use services, including Aboriginal CYMH services is now available to the public.

Recommendation 3 and Agency Response: BC Coroners Service Practice

Action	Status	Status Notes
BC Coroner Service (BCCS)	Ongoing	BCCS provides Coroner Reports to the Representative
proactively provide child death		for Children and Youth (RCY) and MCFD for children
coroners reports, when deemed		receiving MCFD supports and services.BCCS provides
appropriate, to stakeholders in		Coroner Reports to agencies involved in the
child welfare, law enforcement,		investigation or review of child fatalities.
education, First Nations health and		
child welfare, injury prevention,		
mental health and advocacy for the		
purposes of informing, educating		
and improving upon what is known		
about child and youth suicide.		
For a trial period of at least 2 years,	Complete	Implemented December 31, 2013 and adopted into
request toxicological analysis and		BCCS Policy October 2016
Pharmanet records for all children		
and youth suicides.		
Review investigative questions re:	Complete	Child Death Investigative Protocol revised to include
youth sexual orientation and		questions related to sexual orientation and bullying.
bullying.		
Ensure use of social media is	Complete	Child Death Investigative Protocol revised to include
investigated as an informational		questions related to use of social media about suicide
source for all suicides.		and/or death websites.

Additionally, two more recent death review panels of child deaths (<u>A Review of First Nations Youth and Young Adult Injury Deaths (2010-2015) and MCFD-Involved Deaths of Youth Transitioning to Independence (2011-2016)</u>) include recommendations to support mental health and well-being among youth. These include:

- By December 31, 2018, the First Nations Health Authority in partnership with relevant agencies will work with partners to increase access to culturally safe treatment services;
- By December 31, 2018, the First Nations Health Authority will facilitate at First Nations
 gatherings such as 'Gathering Our Voices' and other community events, eliciting youth views
 about how to increase connectedness, wellness and safety and resilience in their communities;
 and,
- By December 2019, the Ministry of Mental Health and Addictions will collaborate with the Ministry of Children and Family Development, Ministry of Health and First Nations Health Authority to ensure access to youth mental health and addictions services for youth transitioning from care or on Youth Agreements.

APPENDIX D: DATA LIMITATIONS AND CONFIDENTIALITY

This review identified a number of data limitations and issues, including:

- The BCCS operates in a live database environment. The data presented within this review is based on open and closed BCCS investigative files. It includes analysis of BCCS investigative notes, relevant records and other documents collected or protocols completed during the course of the coroners' investigation. Some deaths were still under investigation and the information was incomplete.
- As of June 1, 2016, the BC Coroners Service implemented the Aboriginal Administrative Data Standard; this will improve data quality and completeness of Indigenous identity on BCCS investigative files. Prior to June 2016, there was the potential to under-report deaths based on First Nations identity. Past BCCS data collection resulted in limited or absent information about Indigenous identity (i.e., First Nations, Métis, Inuit), or whether an individual lived on a reserve.
- This review presents data subsets with small numbers (n). These should be interpreted with caution. When the 'n' is low, conclusions are less certain than for larger groups.
- Provisions under the Coroners Act and Freedom of Information and Protection of Privacy Act allow for the BCCS to disclose information to meet its legislative mandate and support the findings and recommendations generated by the review process. For the purposes of this report, information is presented in aggregate. Details that could identify the people have been omitted to respect the privacy of the person who died and their families. The BCCS is sensitive to the privacy of individuals and families that it serves and proceeds with caution when reporting review findings.

APPENDIX E: DATA TABLES

Appendix Table 1: Number of Child and Youth Suicides by Year	
2013	12
2014	24
2015	19
2016	20
2017	22
January to June 30, 2018	14
Total	111

Appendix Table 2: Number of Child and Youth Suicides by Sex of Decedent (January 1, 2013 – June 30, 2018)		
Males	84	
Females	27	
Total	111	

Appendix Table 3: Suicide Deaths by Age of Decedent			
(January 1, 2013 – June 30, 2018)			
	Number of Suicides		
10-14 years	16		
15-18 years	95		
Total	111		

REFERENCES AND BIBLIOGRAPHY

- Beautrais, AL., (2003). Suicide and serious suicide attempts in youth: a multiple-group comparison study. *American Journal of Psychiatry*, 160(6), p1093-1099.
- Belsher BE, Smolenski, DJ, Pruitt, LD., et al. Prediction Models for Suicide Attempts and Deaths: A Systematic Review and Simulation. JAMA Psychiatry. Published online March 13, 2019. doi:10.1001/jamapsychiatry.2019.0174
- BC Coroners Service, (2018). Unpublished data: Number of child and youth suicides, 2016.
- BC Coroners Service, (2018). Unpublished data: Number of child and youth suicides, 2013-2018.
- BC Vital Statistics, (2018).
- Borowsky, IW., Taliaferro, LA., & McMorris, BJ. (2013). Suicidal thinking and behavior among youth involved in verbal and social bullying: Risk and protective factors. *Journal of adolescent health*, 53(1), S4-S12.
- Bridge, JA., Iyengar, S., Salary, CB., et al., (2007). Clinical response and risk for reported suicidal ideation and suicide attempts in pediatric antidepressant treatment: a meta-analysis of randomized controlled trials. *JAMA*, 297(15), p1683–1696. DOI:10.1001/jama.297.15.1683.
- Calear, A., Christensen, H., Freeman, A., Fenton, K., Busby Grant, J., van Spijker, B., & Donker, T., (2016). A systematic review of psychosocial suicide prevention interventions for youth. *European Child & Adolescent Psychiatry*, 25(5), p467-482. DOI: 10.1007/s00787-015-0783-4.
- Carpiniello, B., & Pinna, F., (2017). The reciprocal relationship between suicidality and stigma. *Frontiers in Psychiatry*, 8:35. DOI: 10.3389/fpsyt.2017.00035.
- Cash, SJ., & Bridge, JA., (2009). Epidemiology of youth suicide and suicidal behaviour. *Current Opinion in Pediatrics*, 21, p613-619.
- Castellvi, P., Miranda-Mendizabal, A., Pares-Badell, O., Almerara, J., Alonso, I., Balsco, M., Cebria, A., Gabilondo, A., Gili, M., Lagares, C., Piqueras, J., Roca, M., Rodrigues-Marin, J., Rodriguez-Jimenez, T., Soto-Sanz, V., & Alonso, J., (2017). Exposure to violence, a risk for suicide in youths and young adults. A meta-analysis of longitudinal studies. *Acta Psychiatrica Scandinavica*, 135 p195-211. DOI: 10.1111/acps.12679.
- Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2016 on CDC WONDER Online Database, released December, 2017. Accessed at http://wonder.cdc.gov/ucd-icd10.html on Oct 20, 2018

- Cha, CB., Franz, PJ., Guzman, EM., Glenn, CR., Kleiman, EM., & Nock, MK., (2018). Annual Research Review: suicide among youth-epidemiology, (potential) etiology, and treatment. *Journal of Child Psychology and Psychiatry*, 59:4 p 460-482. DOI: 10.1111/jcpp.12831.
- Choi, N., Nitto, D., & Marti, CN., (2017). Youth firearm suicide: Precipitating / risk factors and gun access. Children and Youth Services Review, 83, p9-16.
- Cipriani, A., Zhou, X., Giovane, CD., Hetrick, SE., Qin, B., Yang, L., Liu, L., & Xie, P., (2016). Comparative efficacy and tolerability of antidepressants for major depressive disorder in children and adolescents: a network meta-analysis. *The Lancet*, 388, Issue 10047, p881-890.
- Colucci, E., & Martin, G., (2007). Ethnocultural aspects of suicide in young people: A systemic Literature review Part 2: risk factors, precipitating agents, and attitudes toward suicide. *Suicide and Life-Threatening Behaviour, The American Association of Suicidology*, 37 (2).
- Cox, G., & Hetrick, S., (2017). Psychosocial interventions for self-harm, suicidal ideation and suicide attempt in children and young people: What? How? Who? And Where? Evidenced Based Mental Health, May 2017, Vol 20 No 2.
- Edelsohn, GA., Karpov, I., Parthasarathy, M., Hutchison, SL., Castelnovo, K., Ghuman, J., & Schuster, JM. (2017). Trends in antipsychotic prescribing in medicaid-eligible youth. Journal of the American Academy of Child & Adolescent Psychiatry, 56(1), 59-66.
- Findlay, L., (2017). Health Reports: Depression and suicidal ideation among Canadians age 15 to 24. Statistics Canada. https://www150.statcan.gc.ca/n1/pub/82-003-x/2017001/article/14697-eng.htm Accessed September 13, 2018.
- Geddes, JR., Carney SM., Davies, C., Kupfer, DJ., Frank, E., & Goodwin, GM., (2003). Relapse prevention with antidepressant drug treatment in depressive disorders: a systematic review. *The Lancet*, 361, p653-61.
- Gibbons, RD., Coca Perraillon, M., Hur, K., Conti, R. M., Valuck, RJ., & Brent, DA., (2015). Antidepressant treatment and suicide attempts and self-inflicted injury in children and adolescents. *Pharmacoepidemiology and drug safety*, 24(2), p208-214.
- Gibbons, Robert D., et al., (2012). Suicidal thoughts and behavior with antidepressant treatment: reanalysis of the randomized placebo-controlled studies of fluoxetine and venlafaxine. *Archives of General Psychiatry*, 69(6), p580-587.
- Goebert, D., Hamagami, F., Hishinuma, E., Chung-Do, J., & Sugimoto-Matsuda, J., (2018). Change pathways in Indigenous and nonindigenous youth suicide. *Suicide and Life-Threatening Behaviour, The American Association of Suicidology*. DOI:10.1111/sltb.12420.

- Government of BC (2018). Draft Principles of Governing the Relationship with Indigenous Peoples https://www2.gov.bc.ca/assets/gov/careers/about-the-bc-public-service/diversity-inclusion-respect/draft principles.pdf.
- Greydanus, D., (2017). Youth suicide: history, epidemiology, risks, and management. *International Journal Child Health Human Development*, 10(4); p285-297.
- Hawton, K., Saunders, K., & O'Connor, R., (2012). Self-harm and suicide in adolescents. *The Lancet,* Vol 379, June 23, 2012, p2373-2382. www.thelancet.com
- Hetrick, S., McKenzie, JE., Cox, GR., Simmons MB., & Merry SN., (2012). Newer generation antidepressants for depressive disorders in children and adolescents. Cochrane Database of Systematic Reviews.

 https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD004851.pub3/full
- House of Commons Report on the Standing Committee of Indigenous and Northern Affairs (2017). http://www.ourcommons.ca/Content/Committee/421/INAN/Reports/RP8977643/inanrp09/inanrp09-e.pdf Accessed August 29, 2017.
- Insel, T., (2011). Post by Former NIMH Director, Thomas Insel: Antidepressants: a complicated picture.

 National Institute of Mental Health. Accessed September 12, 2018.

 https://www.nimh.nih.gov/about/directors/thomas-insel/blog/2011/antidepressants-a-complicated-picture.shtml#_edn14
- Isaak, CA., Campeau, M., Katz, LY., Enns, MW., Elias, B., and Sareen, J., (2010). Community-based suicide prevention research in remote on-reserve First Nations communities (2009). *International Journal Mental Health and Addiction*, 8, p258-270.
- Isacsson, G, & Rich, C., (2014). Antidepressant drugs and the risk of suicide in children and adolescents. *Pediatric Drugs*, 16(2), p115-122. Academic Search Complete, EBSCOhost (accessed August 8, 2018).
- Johnson, SB., Blum, RW. & Giedd J.N., (2009). Adolescent maturity and the brain: the promise and pitfalls of neuroscience research in adolescent health policy. Journal of Adolescent Health, September 2009; 45(3): 216-221.
- Katz, LY., Au, W., Singal, D., Brownell, M., Roos, N., Martens, P., Chateau, D., Enns, MW., Kozyrskyj, AL., & Sareen, J., (2011). Suicide and suicide attempts in children and adolescents in the child welfare system. *Canadian Medical Association Journal*, November 22, 2011, 183(17), p1977-1981.
- Keeshin, BR., Gray, D., Zhang, C., Presson, AP., & Coon, H., (2018). Youth suicide deaths: investigation of clinical predictors in a statewide sample. *Suicide and Life-Threatening Behaviour, The American Association of Suicidology*, 48(5), p601-612.
- Kim, Y., Moon, S., & Kim, M., (2011). Physical and psycho-social predictors of adolescents' suicide behaviours. *Child Adolescence Social Work Journal*, 28, p421-438.

- Klomek, AB., Sourander, A., & Gould, M., (2010). The association of suicide and bullying in childhood to young adulthood: a review of cross-sectional and longitudinal research findings. *Canadian Journal of Psychiatry*, May 2010; 55(5), p282-288.
- Kuiper, N., Goldston, D., Garraza LG., Walrath, Cl, Gould, M., McKeon, R., (2018). Examining the unanticipated adverse consequences of youth suicide prevention strategies: a literature review with recommendations for prevention programs. *Suicide and Life-Threatening Behaviour, The American Association of Suicidology*. P 1-14, DOI: 10.1111/sltb.12492.
- Kumar, M., & Nahweganbow, A., (October 2016). Aboriginal peoples survey, 2012. Past-year suicidal thoughts among off-reserve First Nations, Métis and Inuit adults aged 18 to 25: Prevalence and associated characteristics. Statistics Canada.
- Lawrence, HR., Nangle, DW., Schwartz-Mette, RA., & Erdley, CA., (2017). Medication for child and adolescent depression: Questions, answers, clarifications, and caveats. *Practice Innovations*, 2(1), p39-53. DOI:10.1037/pri0000042
- Locher, C., Koechlin, H., Zion SR., et al., (2017). Efficacy and safety of selective serotonin reuptake inhibitors, serotonin-norepinephrine reuptake inhibitors, and placebo for common psychiatric disorders among children and adolescents: a systematic review and meta-analysis. *JAMA Psychiatry*, 74(10), p1011–1020. DOI:10.1001/jamapsychiatry.2017.2432
- Luxton, D., June, JD., & Fairall, JM., (2012). Social media and suicide: a public health perspective. *American Journal of Public Health*, Supplement 2, 102 (S2), pS195-S199.
- McClatchey, K., Murray, J., Chouliara, Z., & Rowat, A. (2018). Protective Factors of Suicide and Suicidal Behavior Relevant to Emergency Healthcare Settings: A Systematic Review and Narrative Synthesis of Post-2007 Reviews. Archives of Suicide Research, 1-17.
- McKinnon, B., Gariépy, G., Sentenac, M., & Elgar, FJ., (2016). Adolescent suicidal behaviours in 32 lowand middle-income countries. Accessed July 24, 2018. *World Health Organization* http://www.who.int/bulletin/volumes/94/5/15-163295/en/
- McKean, A., Pabbati, CP., Geske, JR., & Bostwick, M., (2018). Rethinking lethality in youth suicide attempts: first suicide attempt outcomes in youth ages 10 to 24. *Journal of the American Academy of Child & Adolescent Psychiatry*, 57(10), p786-791.
- McLean, J., Maxwell, M., Platt, S., Harris, F., & Jepson, R., (2008). Risk and protective factors for suicide and suicidal behaviour: a literature review. *The Scottish Government Social Research*https://www.gov.scot/Resource/Doc/251539/0073687.pdf Accessed September 26, 2018
- Merikangas, KR., He, J., Rapoport, J., Vitiello, B., Olfson, M., (2013). Medication use in US youth with mental disorders. *JAMA Pediatrics*, 167(2), p141–148. DOI:10.1001/jamapediatrics.2013.431

- Ministry of Education and Ministry of Attorney General (1999). Focus on bullying: A prevention program for elementary school communities. https://www.prevnet.ca/sites/prevnet.ca/files/Books-Focus-on-Bullying.pdf
- Miranda, R., & Shaffer, D., (2013). Understanding the suicidal moment in adolescence. *Annals of the New York Academy of Sciences*, 1304(1), 14-21. DOI:10.1111/nyas.12291
- Moskos, M., Olson, L., Halbern, S., Keller, T., & Gray, D., (2005). Utah youth suicide study: psychological autopsy. *Suicide and Life-Threatening Behaviour, The American Association of Suicidology*, 35(5), p 536-546.
- National Centre for Biotechnology Information (2018). Accessed August 9, 2018.

 https://www.nimh.nih.gov/about/directors/thomas-insel/blog/2011/antidepressants-a-complicated-picture.shtml
- Navaneelan, T., (2012). Suicide rates an overview: archived content. Statistics Canada.

 https://www150.statcan.gc.ca/n1/pub/82-624-x/2012001/article/11696-eng.htm Accessed September 28, 2018
- Nielsen, ES., Rasmussen, L., Hellfritzsch, M., Thomsen, PH., Nørgaard, M., & Laursen, T., (2017). Trends in off-label prescribing of sedatives, hypnotics and antidepressants among children and adolescents: a Danish, nationwide register-based study. *Basic & Clinical Pharmacology & Toxicology*, 120(4), p360-367. DOI:10.1111/bcpt.12706
- Notredame, CE., Grandgenèvre, P., Pauwels, N., Morgiève, M., Wathelet, M., Vaiva, G., & Séguin, M., (2018). Leveraging the web and social media to promote access to care among suicidal individuals. *Frontiers in Psychology*, 9, p1338. http://doi.org/10.3389/fpsyg.2018.01338
- O'Brien, M., Crickard, E., Lee, J., & Holmes, C., (2013). Attitudes and experience of youth and their parents with psychiatric medication and relationship to self-reported adherence. *Community Mental Health Journal*, 49(5), p567-575. DOI:10.1007/s10597-012-9526-x
- Olfson, M., King, M., Schoenbaum, M., (2015). Treatment of young people with antipsychotic medications in the United States. *JAMA Psychiatry*, 72(9), p867–874. DOI:10.1001/jamapsychiatry.2015.0500
- Peter, T., Edkins, T., Watson, R., Adjei, J., Homma, Y., & Saewyc, E., (2017). Trends in suicidality among sexual minority and heterosexual students in a Canadian population-based cohort study.

 *Psychology of Sexual Orientation and Gender Diversity. 4(1), p115-123. DOI: 10.1037/sgd0000211.
- Provincial Health Officer Annual Report (2007): Pathways to health and healing, 2nd report on the health and well-being of Aboriginal people in British Columbia, Office of the Provincial Health Officer, BC Ministry of Health, 2016.

- Public Health Agency of Canada (2018). https://www.canada.ca/en/public-health/services/suicide-prevention/suicide-canada.html Accessed September 13, 2018.
- Ray, WA., Stein, C. M., Murray, KT., Fuchs, DC., Patrick, SW., Daugherty, J., ... & Cooper, WO. (2019).

 Association of antipsychotic treatment with risk of unexpected death among children and youths. *JAMA psychiatry*, 76(2), 162-171.)
- Robinson, J., Hetrick, SE., & Martin, C. (2011). Preventing suicide in young people: systematic review. *Australian & New Zealand Journal of Psychiatry*, 45(1), p3–26. https://doi.org/10.3109/00048674.2010.511147
- Roy, A., (2004). Relationship of childhood trauma to age of first suicide attempt and number of attempts in substance dependent patients. *Acta Psychiatrica Scandinavica*, 109(2), p121-125. DOI:10.1046/j.0001-690X.2003.00234.x
- Saewyc, E., Konishi, C., Rose, H., & Homma, Y., (2014). School-based strategies to reduce suicidal ideation, suicide attempts, and discrimination among sexual minority and heterosexual adolescents in western Canada. *International Journal of Child, Youth and Family Studies*, 5 (1) p89-112.
- Sarchiapone, M., Mandelli, L., Iosue, M., Andrisano, C., & Roy, A., (2011). Controlling access to suicide means. International journal of environmental research and public health, 8(12), 4550-62.
- Schwartz, C., Waddell, C., Andres, C., Yung, D., Barican, J., & Gray-Grant, D., (2017). Helping children with depression. Children's Mental Health Research Quarterly, 11(4), p1-16, Children's Health Policy Centre, Faculty of Health Sciences, Simon Fraser University.
- Sharma, AN., Arango, C., Coghill, D., Gringras, P., Nutt, DJ., Pratt, P., & ... Hollis, C., (2016). BAP position statement: off-label prescribing of psychotropic medication to children and adolescents. *Journal of Psychopharmacology*, 30(5), p416-421. DOI:10.1177/0269881116636107
- Smith, A., Stewart, D., Poon, C., Peled, M., Saewyc, E., & McCreary Centre Society (2014). From Hastings Street to Haida Gwaii: provincial results of the 2013 BC Adolescent Health Survey. Vancouver, BC: McCreary Centre Society. Accessed August 7, 2018 from http://www.mcs.bc.ca/pdf/From Hastings Street To Haida Gwaii.pdf
- Smith, A., Forsyth, K, Poon, C., Peled, M., Saewyc, E., & McCreary Centre Society (2019). Balance and connection in BC: the health and well-being of our youth. Vancouver, BC: McCreary Centre Society.
- Spirito, A., & Esposito-Smythers, C., (2006) Attempted and completed suicide in adolescence. *Annual Review of Clinical Psychology*, 2, p237-266.
- Statistics Canada (2017). Study: depression and suicidal ideation among Canadians age 15 to 24. Accessed July 26, 2018.

- Statistics Canada (2018). Leading causes of death, total population, by age group. https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1310039201&pickMembers%5B0%5D=2.1&pickMembers%5B1%5D=3.1 November 5, 2018.
- Statistics Canada. Table null Deaths, by cause, Chapter XX: External causes of morbidity and mortality (V01 to Y89) https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1310015601
- Tourand, J., Smith, A., Poon, C., Saewyc, E., & McCreary Centre Society (2016). Raven's Children IV: Aboriginal youth health in BC. Vancouver, BC: McCreary Centre Society. www.mcs.bc.ca
- U.S. Department of Justice (2010). https://www.justice.gov/opa/pr/pharmaceutical-giant-astrazeneca-pay-520-million-label-drug-marketing. Accessed October 31, 2018.
- U.S. Preventive Services Task Force (2016). Depression in children and adolescents: screening (February 2016).

 https://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/depression-in-children-and-adolescents-screening1
- Veale, J., Peter, T., Travers, R., Saewyc, EM., (2017). Enacted stigma, mental health, and protective factors among transgender youth in Canada. *Transgender Health*, 2(1), p207-216. DOI: 10.1089/trgh.2017.0031.
- Veale, J., Watson, R., Peter, T., Saewyc EM., (2017). Mental health disparities among Canadian transgender youth. *Journal of Adolescent Health*, 60 (1), p44-49. DOI:10.1016/j.jadohealth.2016.09.014.
- Watanabe, N., Hunot, V., Omori, IM., Churchill, R., & Furukawa, TA., (2007). Psychotherapy for depression among children and adolescents: a systematic review. *Acta Psychiatrica Scandinavica*, 116(2), p84-95. DOI:10.1111/j.1600-0447.2007.01018.x
- World Health Organization (WHO), (2018). http://www.who.int/en/news-room/fact-sheets/detail/adolescents-health-risks-and-solutions
- Yerevanian, Bl., Koek, RJ., Feusner, JD., Hwang, S., & Mintz, J., (2004). Antidepressants and suicidal behaviour in unipolar depression. Acta Psychiatrica Scandinavica, 110(6), p452-458. DOI:10.1111/j.1600-0447.2004.00437.x
- Zito, JM., Derivan, AT., Kratochvil, CJ., Safer, DJ., Fegert, JM., & Greenhill, L., (2008). Child and Adolescent Psychiatry and Mental Health 2008, 2:24 doi:10.1186/1753-2000-2-24