

## Mental Health Among Students in the Haliburton, Kawartha, Pine Ridge District Health Unit, 2017 Ontario Student Drug Use and Health Survey (OSDUHS)

Mental health is “the state of your psychological and emotional well-being”, where good mental health “allows you to feel, think, and act in ways that help you enjoy life and cope with its challenges”. (1) Mental health can be influenced by life experiences (family situation, death of a loved one, etc.), relationships (friends, families, etc.), work or school environment, physical health (long-term illness, etc.), and community, and is a key component of health overall. While mental health is different from mental illness, poor mental health can lead to physical or mental illness. (1)

Mental illness is “the reduced ability for a person to function effectively over a prolonged period of time because of: significant levels of distress; changes in thinking, mood or behaviour; feelings of isolation, loneliness and sadness; [and/or] the feeling of being disconnected from people and activities”. (2) The experience of mental illness can make coping with everyday life a significant challenge, and can be linked with suicide. While anyone can experience mental illness, risk factors include genetics, early life experiences (e.g. abuse, trauma), stressful life events (e.g. death of a loved one, divorce), prenatal exposure (e.g. drugs, alcohol), and social, economic, or educational status. Mental health issues usually begin in adolescence and young adulthood; (2) common mental health disorders among children and youth include anxiety, attention-deficit/hyperactivity disorder (ADHD), and depression and other mood disorders. (3)

The purpose of this *inform* is to highlight findings on mental health from the 2017 Ontario Student Drug Use and Health Survey (OSDUHS) within the Haliburton, Kawartha, Pine Ridge District Health Unit (HKPRDHU).

### Methods & Data Notes

The OSDUHS is a population survey of Ontario students from grade 7 through grade 12, conducted every two-years, that is distributed within publicly-funded schools within Ontario. (4) The survey is self-administered, anonymous, and considered representative of all Ontario students in both English and French language schools, within the Public and Catholic School Boards. (4) In 2016/17, the HKPRDHU purchased an over-sample of the OSDUHS in order to obtain estimates for youth residing within the HKPR District. In total, there were 1215 surveys completed for the 2016/2017 OSDUHS survey by students within the HKPR District; 585 by elementary-school students and 630 by high-school students. Male students accounted for 43.4% and female students accounted for 55.6% of respondents. Surveys were completed for students in grade 7 (n=232), grade 8 (352), and grades 9 – 12 (629)<sup>†</sup>. The median age of respondent was 14 years of age (mean: 14.1; standard deviation (SD): 1.72).

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<sup>†</sup>Two surveys did not report the grade of the student; summing the number of students by grade will not match the total sample size.

## Results

### General mental health

- Almost one-in-five (19.2%, 95% confidence interval (CI): 14.6, 24.9) grade 7 – 12 HKPRDHU students self-rated their mental health as excellent while another one-in-five (18.8%\*, 95% CI: 13.0, 25.8) self-rated their mental health as being fair or poor. These estimates for HKPRDHU students are not significantly different than the rest of Ontario students ( $p > 0.05$ ).
- One-in-five (20.7%, 95% CI: 16.6, 25.6) grade 7 – 12 HKPRDHU students reported that their mental health affects their grades “quite a lot”, and one-in-eight (12.1%, 95% CI: 9.8, 14.8) reported that it affects their grades “a great deal”. The estimates for HKPRDHU students are not significantly different than for the rest of Ontario students ( $p > 0.05$ ).
- Over one-in-twenty (6.4%\*, 95% CI: 4.5, 9.0) grade 7 – 12 HKPRDHU students indicated low self-esteem (strongly disagreed that they were satisfied with themselves). The estimate for HKPRDHU students is not significantly different than the rest of Ontario students ( $p > 0.05$ ).
- One-in-three (32.8%, 95% CI: 26.6, 39.6) grade 7 – 12 HKPRDHU students experienced elevated stress in the previous 4-weeks. The estimate for HKPRDHU students is not significantly different than the rest of Ontario students ( $p > 0.05$ ).

### ADHD

- Over one-in-six (17.1%, 95% CI: 13.3, 21.6) grade 7 – 12 HKPRDHU students experienced symptoms of attention-deficit/hyperactivity disorder (ADHD) in the past 6-months. The estimate for HKPRDHU students is not significantly different than the rest of Ontario students ( $p > 0.05$ ).
- The most common symptoms of ADHD reported among all HKPRDHU students were “often” or “very often” fidgeting or squirming when required to sit for a long period of time (43.4%, 95% CI: 36.5, 50.5), avoiding or delaying starting a project that would require a lot of thought (23.4%, 95% CI: 20.0, 27.1), or feeling overly active or compelled as if driven by a motor (22.0%, 95% CI: 19.6, 24.7).

### Psychological distress

- One-in-five (20.2%, 95% CI: 16.8, 24.1) grade 7 – 12 HKPRDHU students experienced moderate psychological distress in the past 4-weeks, and almost one-in-six (15.2%, 95% CI: 11.2, 20.3) experienced serious psychological distress. These estimates for HKPRDHU students are not significantly different than the rest of Ontario students ( $p > 0.05$ ).
- The most common symptoms of psychological distress among HKPRDHU students were feeling restless or fidgety “most” or “all of the time” (21.2%, 95% CI: 15.2, 28.7), that everything was an effort (17.3%, 95% CI: 13.2, 22.4), and feeling nervous (13.8%\*, 95% CI: 9.8, 19.0).
- Over two-in-five (42.3%, 95% CI: 39.7, 45.1) grade 9 – 12 HKPRDHU students reported ever experiencing a traumatic event. The estimate for HKPRDHU students is significantly higher than the rest of Ontario students (35.1%, 95% CI: 32.8, 37.6,  $p < 0.05$ ).

## Suicide

- One-in-ten (9.8%\*, 95% CI: 6.3, 15.0) grade 7 – 12 HKPRDHU students reported seriously contemplating suicide in the previous 12-months. The estimate for HKPRDHU students is not significantly different than the rest of Ontario students ( $p > 0.05$ ).
- The percent of HKPRDHU students that reported attempting suicide in the past 12-months was 2.2 (95% CI: 1.4, 3.3). The estimate for HKPRDHU students is significantly lower than the rest of Ontario students (3.9%, 95% CI: 3.0, 4.9,  $p < 0.05$ ).

## Support

- About one-in-fourteen (7.0%, 95% CI: 4.1, 11.6) grade 7 – 12 HKPRDHU students had been prescribed medication for anxiety and/or depression in the previous 12-months. These estimates for HKPRDHU students are not significantly different than the rest of Ontario students ( $p > 0.05$ ).
- Almost one-in-three (30.5%, 95% CI: 25.1, 36.5) grade 7 – 12 HKPRDHU students reported seeing a professional about their emotional or mental health in the past 12-months. The estimate for HKPRDHU students is not significantly different than the rest of Ontario students ( $p > 0.05$ ).
- One-in-four (24.9%, 95% CI: 19.3, 31.5) grade 7 – 12 HKPRDHU students reported wanting to talk to someone about a mental health or an emotional problem in the past 12-months but did not know where to turn. The estimate for HKPRDHU students is not significantly different than the rest of Ontario students ( $p > 0.05$ ).

## Public Health Messaging

Mental health is a crucial component of health overall. The Canadian Pediatric Society recommends the following for parents to promote their child's mental health: (5)

- Help them build strong, caring relationships; spend time together
- Help them develop self-esteem; show them love and acceptance, recognize their efforts as well as their achievements, ask about their hobbies and interests, help them set goals
- Listen and respect their feelings; encourage them to talk about how they feel, ask questions and listen, help them find someone else to talk to if they don't feel comfortable talking with you
- Create a safe, positive home environment; be aware of their media use and who they might be interacting with, be careful discussing serious family issues around them, provide time for activities and play, role model by taking care of your own mental health and talking about your feelings
- In difficult situations, help them problem-solve; teach them how to relax when they feel upset, encourage them to think about solutions

Like with any physical illness or injury, it's important for parents to seek professional help for their child if they think they may be struggling with their mental health or a mental illness. (3) (5) While it is normal for children and youth to have different moods, thoughts, and behaviours, the following signs and symptoms can be a concern if they are intense, persist over long periods of time, are inappropriate for the child's age, or interfere with the child's life, and may be a flag to seek additional help: (3)

- Get significantly lower marks in school
- Avoid friends and family
- Frequent angry outbursts
- Changes to sleeping or eating habits
- Act or rebel against authority
- Drink a lot and/or use drugs
- No longer do the things they used to enjoy
- Worry constantly
- Experience frequent mood swings
- Not concerned with their appearance
- Obsessed with their weight
- Lack energy or motivation
- Increased risk-taking behaviour
- Feel very down

## References

1. **Government of Canada.** About mental health. [Online] October 6, 2015. [Cited: January 16, 2020.] <https://www.canada.ca/en/public-health/services/about-mental-health.html>.
2. —. About mental illness. [Online] September 15, 2017. [Cited: January 16, 2020.] <https://www.canada.ca/en/public-health/services/about-mental-illness.html>.
3. **Canadian Mental Health Association.** Child and Youth Mental Health: Signs and Symptoms. [Online] [Cited: January 16, 2020.] <https://ontario.cmha.ca/documents/child-and-youth-mental-health-signs-and-symptoms/>.
4. **Boak A, Hamilton H A, Adlaf E M, Henderson J L, Mann R E.** *The mental health and well-being of Ontario students, 1991-2017: Detailed findings from the Ontario Student Drug Use and Health Survey (OSDUHS) (CAMH Research Document Series No. 47).* Toronto, ON : Centre for Addiction and Mental Health, 2018.
5. **Canadian Pediatric Society.** Your child's mental health. [Online] May 2017. [Cited: January 15, 2020.] [https://www.caringforkids.cps.ca/handouts/mental\\_health](https://www.caringforkids.cps.ca/handouts/mental_health).

## Limitations

Only students attending a school in the Catholic or Public-School system were including in the sampling for the OSDUHS. Students attending private schools, students that are home-schooled, and school-aged children that are not attending school (dropped out) were not eligible to participate in the survey.

Although individual school boards agreed to allow the OSDUHS to be administered in their schools, the decision for a school to participate or not was at the discretion of the school's Principal, which may lead to over- or under-reporting for students in certain areas within the HKPRDHU's region.

All responses provided by the students are self-reported may be subject to some amount of bias—potentially more so with questions considered to be sensitive—however, it is not possible to confirm or refute the responses provided. Children absent on the day the survey was administered or children who declined to participate in the survey may also contribute to potential bias in the data, if these children systematically differed from those who participated.

## Definition of Terms

**Estimate** – The estimate is the per cent or value observed/reported in the sample that is generalized to the broader population with similar characteristics (e.g., grade 7 – 12 students).

**95% confidence interval (95% CI)** – Confidence intervals (CIs) are the range of variability around an estimate. The 95% CI displays the range surrounding an estimate in which there is a 95% probability that the population value occurs.

**Significantly different ( $p < 0.05$ )** – When estimates are said to be significantly different (or statistically significant;  $p < 0.05$ ), this indicates that the differences observed are not likely due to chance alone. Additional factors may be present (or absent) to a greater degree in one or more of the groups being compared.

**Mean** – The mean (or average) is calculated by adding the observed values together and dividing by the number of observations.

**Standard Deviation (SD)** – The standard deviation (SD) indicates how much the observed values vary from the mean. A lower SD indicates that more of the observed values are closer to the mean (higher precision), whereas a higher SD would indicate that the observed values are spread out more widely around the mean (lower precision).

**Coefficient of Variation (CV)** – The coefficient of variation is the ratio of the standard deviation to the estimate, displayed as a percentage. The CV indicates the size of the standard deviation compared to the estimate. As the variability around an estimate increases so too does the CV. For example, a CV of 33% indicates that the SD is 33% or one-third the size of the estimate.

**Sample-size** – The sample-size is the number of responses or individuals observed. As the size of a sample increases the SD decreases, and the ability to detect differences (power) increases.

**\*** – A single asterisk (\*) indicates that the reported estimate has a higher degree of variability and should be interpreted with caution. When a single asterisk (\*) is used, the CV for the estimate is within the range of 16.6% – 33.3%.

**\*\*** – A double asterisk (\*\*) indicates that an estimate has been suppressed. Data are suppressed when the CV or an estimate is equal to or greater than 33.3%. Additionally, values have been suppressed when the reported sample-size (the number of people responding to a question) is less than 30.

Table. 1 Mental Health Determinants and Risk Factors, HKPRDHU vs. Ontario

Topic	Response	HKPRDHU	Ontario	Difference
ADHD	Did not report ADHD symptoms in past 6 months	82.9 (78.4-86.7)	79.8 (77.7-81.8)	
	Reported ADHD symptoms in past 6 months	17.1 (13.3-21.6)	20.2 (18.2-22.3)	
ADHD, AVOID OR DELAY STARTING PROJECT	Never, rarely, or sometimes	76.6 (72.9-80.0)	74.9 (72.5-77.2)	
	Often or very often	23.4 (20.0-27.1)	25.1 (22.8-27.5)	
ADHD, FEEL ACTIVE OR COMPELLED	Never, rarely, or sometimes	78.0 (75.3-80.4)	83.9 (82.4-85.4)	↓
	Often or very often	22.0 (19.6-24.7)	16.1 (14.6-17.6)	↑
ADHD, FIDGET OR SQUIRM	Never, rarely, or sometimes	56.6 (49.5-63.5)	55.6 (53.6-57.6)	
	Often or very often	43.4 (36.5-50.5)	44.4 (42.4-46.4)	
ELEVATED STRESS	Experienced elevated stress in past 4 weeks	32.8 (26.6-39.6)	30.4 (27.6-33.4)	
	Experienced little to some stress in past 4 weeks	46.4 (43.5-49.4)	53.2 (49.8-56.7)	↓
	Experienced no stress in past 4 weeks	20.8 (14.9-28.2)	16.3 (15.0-17.8)	
MENTAL HEALTH AFFECT GRADES	A great deal	12.1 (9.8-14.8)	10.4 (9.1-12.0)	
	A little	34.5 (31.1-38.0)	35.9 (33.6-38.2)	
	Not at all	32.7 (27.7-38.1)	35.6 (33.9-37.2)	
	Quite a lot	20.7 (16.6-25.6)	18.1 (16.5-19.9)	
MENTAL HEALTH CARE VISIT	Did not see a professional in past 12 months	69.5 (63.5-74.9)	75.5 (72.8-78.1)	
	Saw a professional at least once in past 12 months	30.5 (25.1-36.5)	24.5 (21.9-27.2)	
PRESCRIBED ANXIETY OR DEPRESSION MEDICATION	Not prescribed for either in the past 12 months	93.0 (88.4-95.9)	94.8 (93.5-95.9)	
	Prescribed for anxiety, depression, or both, in the past 12 months	7.0 * (4.1-11.6)	5.2 (4.1-6.5)	
PSYCHOLOGICAL DISTRESS	Low to no psychological distress in past 4 weeks	64.6 (57.4-71.2)	61.3 (57.4-65.1)	
	Moderate or serious psychological distress in past 4 weeks	35.4 (28.8-42.6)	38.7 (34.9-42.6)	
PSYCHOLOGICAL DISTRESS, CATEGORIES	Low to no psychological distress in past 4 weeks	64.6 (57.4-71.2)	61.3 (57.4-65.1)	
	Moderate psychological distress in past 4 weeks	20.2 (16.8-24.1)	21.6 (19.7-23.7)	
	Serious psychological distress in past 4 weeks	15.2 (11.1-20.3)	17.1 (14.9-19.5)	
SELF-ESTEEM	Somewhat agree that satisfied with self	46.1 (38.8-53.5)	44.3 (42.6-46.1)	



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Topic	Response	HKPRDHU	Ontario	Difference
	Somewhat disagree that satisfied with self	13.8 (10.0-18.6)	16.8 (14.7-19.2)	
	Strongly agree that satisfied with self	33.7 (26.5-41.8)	32.4 (29.9-35.0)	
	Strongly disagree that satisfied with self (low self-esteem)	6.4 * (4.5-9.0)	6.5 (5.4-7.7)	
SELF-RATED MENTAL HEALTH	Excellent	19.2 (14.6-24.9)	21.8 (19.5-24.3)	
	Fair or poor	18.6 * (13.0-25.8)	18.8 (17.2-20.5)	
	Good	32.5 (28.4-36.8)	27.7 (25.1-30.5)	
	Very good	29.8 (25.3-34.6)	31.7 (29.1-34.4)	
SOUGHT COUNSELLING OVER PHONE OR INTERNET	Called a helpline and/or posted on a website in the past 12 months	** (1.4-6.1)	3.4 * (2.3-5.1)	
	Did not use the phone or internet to seek a counsellor in the past 12 months	97.1 (93.9-98.6)	96.6 (94.9-97.7)	
SUICIDAL IDEATION	No, has not seriously considered attempting suicide in past 12 months	90.2 (85.0-93.7)	86.3 (85.0-87.6)	
	Yes, has seriously considered attempting suicide in past 12 months	9.8 * (6.3-15.0)	13.7 (12.4-15.0)	
SUICIDE ATTEMPT	No, did not attempt suicide in past 12 months	97.8 (96.7-98.6)	96.1 (95.1-97.0)	
	Yes, attempted suicide in past 12 months	2.2 * (1.4-3.3)	3.9 (3.0-4.9)	↓
TRAUMATIC EVENT	No, has never experienced a traumatic event	34.4 (29.0-40.3)	38.3 (34.6-42.2)	
	Not sure if ever experienced a traumatic event	23.2 (18.7-28.4)	26.5 (23.6-29.7)	
	Yes, has ever experienced a traumatic event	42.3 (39.7-45.0)	35.1 (32.8-37.6)	↑
UNMET NEED FOR MENTAL HEALTH SUPPORT	No, did not have unmet mental health support need in the past 12 months	75.1 (68.5-80.8)	68.7 (64.7-72.5)	
	Yes, wanted to talk to someone and didn't know where to turn in the past 12 months	24.9 (19.2-31.5)	31.3 (27.5-35.3)	

↑ Indicates a significantly higher estimate compared to the rest of Ontario; ↓ Indicates a significantly lower estimate compared to the rest of Ontario.