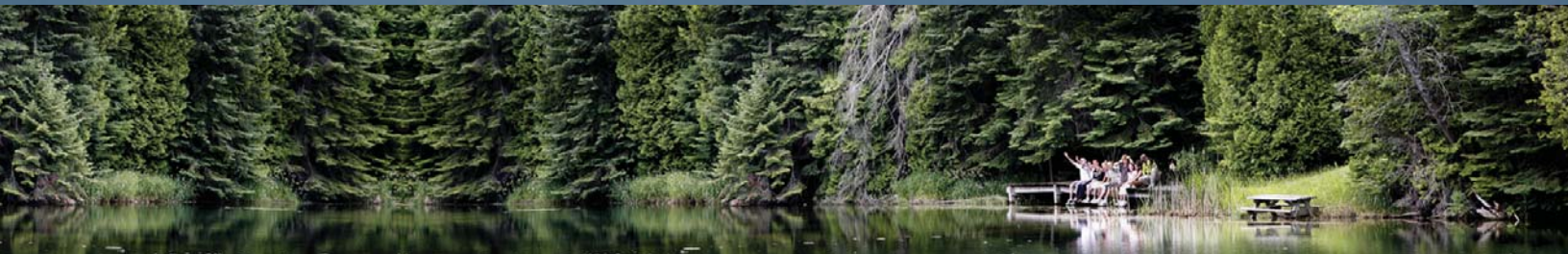


Pine River Institute

Annual Evaluation Report

January 1, 2014 – December 31, 2014



Prepared by:

Laura Mills, Ph.D. (Q.M. Psych)
Director, Research & Evaluation

Sarah McNeill, Research Assistant



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PINE RIVER
Institute

Pine River Institute: An Introduction

PINE RIVER INSTITUTE (PRI) is a residential treatment program for youth 13-19 struggling with addictive behaviours and, more often than not, mental, behavioural, and relationship problems. They are a group of very complex teens, many with recent hospital visits, police contact, running away, confrontations in their home and in their community, and stalled or abandoned school careers. When they come to us they are angry, sad, and quite lost. Their parents are desperate. They walk on eggshells to try to keep peace in their homes. They are frantic when they can't find their child for days. Many have experienced pain and confusion when their child attempts suicide or other self-harm gestures as a way to cope. They wonder how their bright, vibrant, social pre-teen found such a dark path and why, despite all attempts, they have been unable to help.

At PRI, they find a safe, nurturing, and professional environment where youth and their families can begin to heal. The PRI program is unique in Canada. We are a family-centered program where wilderness, residential, therapeutic, and academic programs come together in an integrated treatment model. PRI's treatment approach is grounded in enhancing adolescent development and maturation. With a 4:1 student-to-staff ratio, we have the opportunity to build strong relationships with our students and families, and we take the time to ensure the capacity for genuine and honest relationships that will last well after our families have finished the program.

Parents have a very important role in the therapeutic process and engage in what we call the 'Parallel Process', where they experience growth and development alongside their child. We walk with parents as they courageously learn about themselves, look at their relationships within their own families, and begin a new relationship with their child.

Students and their families move seamlessly through a comprehensive program that entails four distinct PHASES. In Phase I, the Outdoor Leadership Experience (OLE), the youth spend time in the wilderness skill-building and living in a small community where they come to recognize that change is necessary. They then move to the second phase, RESIDENCE, an academic and therapeutic community. As they demonstrate greater levels of maturity and leadership, they move to the third phase, TRANSITION. Transition is a time to start taking the lessons home. Students and families are supported as a student gradually increases time spent at home and away from the campus. During this time, families develop an aftercare plan that is designed for successful re-integration into their home community. During the fourth phase, AFTERCARE, the student no longer resides at the campus but continues to receive



support with sustaining their treatment gains, community integration, local social support, and help connecting with school, and/or work.

PRI serves about 35 youths each year, and they stay an average of just over a year. Families who contact us on behalf of a struggling youth wait about 16 months if they require one of the 29 beds funded by the Ministry of Health and Long-Term Care. If they pay privately for a bed, their wait is substantially shorter. There are about 200 families on the PRI waitlist; many of those who call indicate that their need is immediate and therefore choose not to be placed on the wait list.

THIS REPORT

PRI's *Annual Evaluation Report* serves a dual purpose; it is an in-house tool for performance quality improvement, and a source of information for our stakeholders. The findings are relevant for all aspects of the organization, including risk management, administration, program development, financial planning, staffing, communications/marketing, and organizational presentations. We also trust that the information will be valuable for funders, government decision-makers, practitioners, researchers, and our referral network.

This report provides *demographics*, *process*, and *outcome* evaluation results for PRI. Demographics include student characteristics such as home location. Process findings include inquiry, admissions, and program engagement. Outcome findings include quality of life, functionality, and substance use information for PRI alumni. For the sake of brevity we show admission information for the most recent three years, and outcome information for all clients, based on how long they have been away from PRI. When we report outcomes, wherever possible, we show results for Completers (Cs) and Non-Completers (NCs). For our purposes, Cs are those students who successfully completed the TRANSITION phase and moved away from the campus.

We call this completing, as aftercare looks different for each youth; families engage at varying levels of support for different lengths of time. In a few years, we will have enough information to explore outcomes based on aftercare engagement.

Our sample is comprised of reports from 67% of parents whose youth attended PRI, 36% of the youth who attended, and reports from clinicians who have been in touch with 30% of their former clients (typically unplanned, when a youth calls to touch base).

Readers should note that due to the voluntary nature of research contribution, some data are missing. Thus, the findings in this report should be considered to represent a sample of the youths who attended Pine River. Further, our results are not necessarily generalizable – they may not represent outcomes experienced by present or future clients. This limitation is inevitable, and common in real-world research and evaluation, and does not negate the findings in this report.

OUR CURRENT AND FUTURE REPORTING APPROACH

At the beginning of 2010, the PRI program underwent profound changes. We secured permanent government funding. Our beds were consistently full. We started a wait list. We fully endorsed our current therapeutic model, our commitment to the parallel process for families, our team-based community milieu, and regular professional development. In other words, we increased our *treatment fidelity*. While we believe it will be most valuable to report outcomes only on youth who were in the program after 2010, the program as we now know it, our numbers are not large enough to provide meaningful data. Thus, for this year's report we retained all youth outcome information since our inception (2006). Next year, we will report all youth information since inception alongside outcomes for youth who attended after 2010. The following year, we will only report on outcomes for youth who attended after 2010.

*Hope is a significant component
or ingredient for change...*

Snapshot of the Full Report



This snapshot provides a general overview of the characteristics of PRI youth, our program processes, and our client outcomes. The full report offers deeper and broader information about our program.

TYPICAL CHARACTERISTICS OF YOUTH ENTERING PRI:

- The average age is 17 years.
- Male-to-female ratio is 2:1. (In 2014, 62% of youth admitted were male).
- About half are from the GTA, 45% from the rest of Ontario, and a few from out-of-province.
- Most youth identify multiple drugs of choice; the most common are marijuana and alcohol.
- 75% of youth have a history of suicidal thoughts; 19% had attempted suicide.
- Over 60% of youth experienced police contact; over 60% had run away from home.
- 28% do not attend school, and another 45% attend less than half the time.
- 70% have a mental health diagnosis, most commonly ADD/ADHD, anxiety, and/or depression.
- 36% of parents report that their youth has a learning issue (e.g., non-verbal learning disorder).

INQUIRY AND ADMISSION INFORMATION

INQUIRIES: Parents, other family members, and professionals contact PRI regarding a struggling youth. In 2014, we received inquiries for 379 youths. March and October were the busiest months for inquiries in 2014. The months that are the busiest fluctuate year to year.

ADMISSIONS: Admission rates are stable at 2-4 per month. Wait time from inquiry to admission increases each year. In 2014, clients funded by the Ministry of Health and Long-Term Care waited an average of 484 days. Those paying privately waited 116 days (typically dependent on family readiness).

PROGRAM ENGAGEMENT

AVERAGE LENGTH OF STAY & PROGRAM COMPLETION: In 2014, youth stayed at PRI an average of 420 days; 55% of youth completed the residence phase of the program.

PARENT ENGAGEMENT: In addition to family therapy sessions, we track parent participation in a number of activities, including parent retreats and parent workshops. Our parents are highly engaged.

TREATMENT OUTCOMES: PRE- AND POST-PRI

The data collected from PRI alumni families allow us to understand the health and behaviour of youth and their families pre- and post-PRI (3-6M, at 1-2 years, and 3+ years). We report outcomes based on whether youth completed the TRANSITION phase or not ('C' and 'NC').

SUBSTANCE USE: Pre-PRI, most youth present with problematic substance use. Post-PRI, most parents report that their child is abstinent or using socially. Cs are more likely to be abstinent and less likely to experience problematic substance use than NCs.

ACADEMICS: Pre-PRI, 11% of parents report that their youth is attending school every day, and very few are earning A's and B's. In the first few years Post-PRI, over 60% are earning A's and B's, and most students are on track to graduate high school, or are pursuing post-secondary studies.

POLICE CONTACT: Pre-PRI, 62% of youth have been involved with police. Post-PRI this is reduced to less than 14% (for Cs).

HOSPITAL VISITS: Pre-PRI, 64% of youth had visited a hospital for substance use, mental health, or other reasons. (40% of these visits took place in the 3 months prior to admission). Post-PRI, less than 6% of Cs had visited a hospital for substance use reasons, and none for mental health reasons.

RUNNING AWAY: Pre-PRI, 60% of youth had run away. Post-PRI this is less than 5% for Cs.

SATISFACTION WITH TREATMENT

Most parents and youth are 'satisfied' or 'very satisfied' with PRI treatment. Parents gave the highest satisfaction ratings to the Outdoor Leadership Experience (OLE) and the parent retreat. Youth indicated highest satisfaction with the front-line staff, academics, and individual therapy.

REPORTABLE INCIDENTS

AWOLs, damage to property, self-harm, aggression, altercations, and other behaviours requiring discipline totaled 129 in 2014. AWOL and self-harm were the most common category of incidents reported.

RESEARCH & EVALUATION

PRI Research is emerging as a leader among our peers. We are members of the Research Consortium for the National Association of Therapeutic Schools and Programs (NATSAP), and serve on their Ethics and Research Boards. We are partnering with the University of New Hampshire to explore health and behaviour outcomes for troubled youth who seek treatment.

PRI is also leading a province-wide project to develop and implement evaluation in youth addiction agencies.

On behalf of 12 collaborative agencies, we secured initial support from the Ontario Centre of Excellence in Child and Youth Mental Health and from Addictions and Mental Health Ontario. We also received a grant of \$327,500 from the Ontario Trillium Foundation, and \$210,262 from Health Canada's Drug Treatment Funding Program to support this collaborative initiative.

We share knowledge about treatment outcomes and the value of research across Canada and with stakeholders including parents, staff, funders, and Board members.

In 2014, we presented our research and evaluation at: Outdoor Behavioural Healthcare Industry Council (Park City, Utah), Addictions and Mental Health Ontario Community of Practice (Toronto, ON), Staff Meetings, Annual Staff Retreat, Parent Retreats and Workshops, and PRI Board of Directors meeting. Also in 2014, we attended the following conferences for learning purposes: NATSAP (Henderson, Nevada), Society for Research on Adolescents (SRA: Austin, Texas), and Robust Statistics Workshop in the Kawarthas (Keene, Ontario).

We have an ongoing relationship with Dr. Debra Pepler, Distinguished Research Professor of Psychology at York University & Senior Adjunct Scientist at the Hospital for Sick Children. Dr. Pepler's M.A. student, Julia Riddell, worked with Pine River students and staff and completed her Master's thesis that focused on how youth at PRI develop relationships and identity.

We will continue to work with our research partners in an effort to publish our findings. The following are research articles that are planned for dissemination in 2015:

- *What Happens to Families who wait for Adolescent Substance Abuse Treatment?*
- *What do Parents Expect from Treatment for their Addicted Teen?*
(Submitted 2015)

The PRI Board of Directors has established a Standing Committee on Research under the leadership of Dr. Mark Greenberg. The Committee has a mandate to advise and monitor on research matters.

Table of Contents

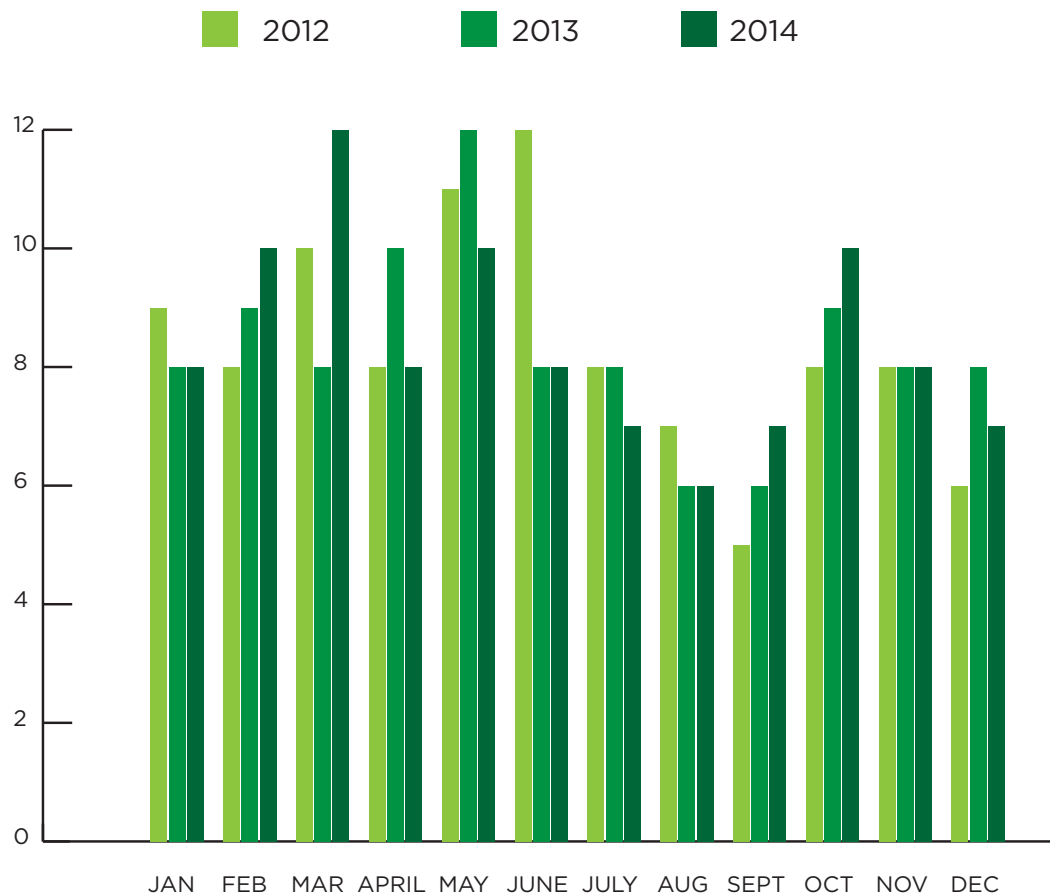
Admissions	9
Characteristics of Admitted Students	11
Mental Health and Learning Issues	12
History of Trauma	15
Student Engagement	15
Parent Engagement	17
Understanding Outcome Results	18
Program Outcomes	19
Substance Use Before PRI	19
Substance Use After PRI	20
Academics	21
Mental Health	24
Hospital Visits	26
Family	29
Quality of Life	30
Physical Health	31
Satisfaction with Treatment at Pine River Institute	32
Incident Reports	33

ADMISSIONS



EACH YEAR, CONCERNED FAMILY MEMBERS, friends, and medical, psychotherapy or education professionals contact PRI regarding a struggling youth. The number of inquiries for identified youth (youth whose name was provided) in 2014 was 379, and for 2013 was 365, about 1.5 per week day¹. The Admissions Department was able to reach 311 (2014) and 346 (2013) of these inquirers to follow up on their initial contact. Since our data for 2012 contains duplicate entries², we do not compare numbers of calls, but show *proportions* of follow-up calls by month (Figure 1). March was particularly busy with inquiries in 2014. In 2013, May was the busiest month, and June was the busiest in 2012.

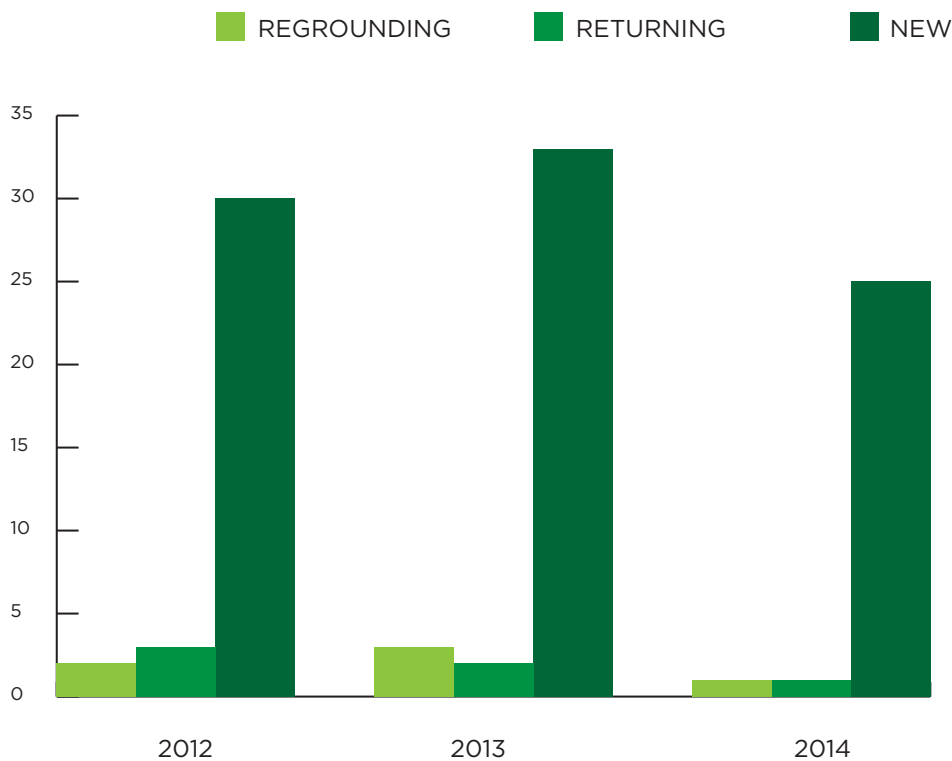
Figure 1. Proportion of Inquiries by Month 2012 - 2014





The Admissions team typically responds to inquiries within one working day. If there is a potential match between the youth and PRI, inquirers are asked to complete the full online application and submit the required medical, psychological, and academic documents and transcripts. Families are then placed on an admission wait list. Families will be scheduled for an on-site assessment prior to admission. The time between assessment and admission fluctuates based on bed availability. After the assessment, if the youth is considered suitable for the program, the youth is admitted when a bed becomes available. Between two and three youths are commonly admitted each month. In 2014, there were 26 admissions, one of whom was a former student (Figure 2). One additional youth took the opportunity, after leaving the program, to return to wilderness for re-grounding.

Figure 2. Number of Admissions per year



The total wait time from inquiry to admission was 484 days in 2014, 396 in 2013, and 362 in 2012 for Ministry of Health and Long-Term Care (MOHLTC) clients³, for whom we have 29 beds. Although these numbers imply an increase in wait time, this increase is not statistically significant. Clients who are funded by MOHLTC (29 beds) wait longer than those who pay privately⁴, for whom we have 7 beds. The average wait times are shown below in days, by year of admission and type of pay (Table 1).

Table 1. Average Days from Contact to Admission by Year and Type of Pay

Year of Admission	Private Pay	MOHLTC Funded
2012 (N=30)	184 days (N=4)	362 days (N=26)
2013 (N=33)	138 days (N=7)	396 days (N=26)
2014 (N=26)	116 days (N=5)	484 days (N=21)

Inquiries are primarily made by a parent, while other family members, professionals (e.g. physicians, therapists), or the students themselves make up the remainder. In 2014, 72% of inquiries were from a parent, while 7% were from another family member, 2% from a medical professional, and 1% came from other professionals or the students themselves (18% of data was missing). In 2013, 82% of inquiries were from parents, 8% from other family, and 1% each from medical professionals or the student (2% were unknown, 6% was missing data). Inquiry sources for 2012 were similar to those of 2013.

CHARACTERISTICS OF ADMITTED STUDENTS

Information on the characteristics of youth admitted to PRI is taken from initial applications, most commonly completed by parents (we call it the parent application), and from surveys administered to youth on their first day in the program.

The average age of youth at admission is 17. Just less than half of PRI youth are from the GTA, about half are from outside the GTA in Ontario; a few PRI families are from outside Ontario. The ratio of male-to-female admissions fluctuates. In 2014, 62% were male, compared to 86% in 2013, and 59% in 2012⁵.

MENTAL HEALTH AND LEARNING ISSUES

PRI youth typically have internalizing problems such as mood issues, externalizing problems such as rule breaking and/or 'other' problems such as attention issues. These problems are measured on a widely used 'Syndrome Scale' that delineates Clinically Problematic, Borderline Clinically Problematic, or Not Clinically Problematic (Sub-Clinical)⁶ scores. The tables below show the parent-reported percentages of PRI students admitted each year whose scores fall into each range for internalizing (Table 2), externalizing (Table 3), and other problems (Table 4). Many youth were clinically problematic across multiple domains, which sheds light on the complexity of these youth. Further, many of the percentages of youth in the clinical range have increased over the last three years, suggesting increasingly complex youth being admitted to the program.

Table 2. Parent-Reported Internalizing Problems Syndrome Scale Scores by Year of Admission

	Anxious/Depressed			Withdrawn / Depressed			Somatic Complaints		
	2012 (N=16)	2013 (N=20)	2014 (N=13)	2012 (N=16)	2013 (N=20)	2014 (N=13)	2012 (N=16)	2013 (N=20)	2014 (N=13)
Clinical	50%	40%	54%	56%	55%	77%	38%	25%	54%
Borderline	19%	35%	31%	38%	30%	15%	6%	5%	0%
Sub-Clinical	31%	25%	15%	6%	15%	8%	56%	70%	46%

Table 3. Parent-Reported Externalizing Problems Syndrome Scale Scores by Year of Admission

	Rule-Breaking Behaviour			Aggressive Behaviour		
	2012 (N=16)	2013 (N=20)	2014 (N=13)	2012 (N=16)	2013 (N=20)	2014 (N=13)
Clinical	94%	85%	100%	63%	50%	38%
Borderline	6%	15%	0%	13%	20%	23%
Sub-Clinical	0%	0%	0%	25%	30%	38%



Table 4. Parent-Reported Other Problems Syndrome Scale Scores by Year of Admission

	Social Problems			Thought Problems			Attention Problems		
	2012 (N=16)	2013 (N=20)	2014 (N=13)	2012 (N=16)	2013 (N=20)	2014 (N=13)	2012 (N=16)	2013 (N=20)	2014 (N=13)
Clinical	19%	20%	38%	44%	30%	62%	25%	30%	62%
Borderline	31%	15%	15%	44%	40%	15%	44%	30%	15%
Sub-Clinical	50%	65%	46%	13%	30%	23%	31%	40%	23%

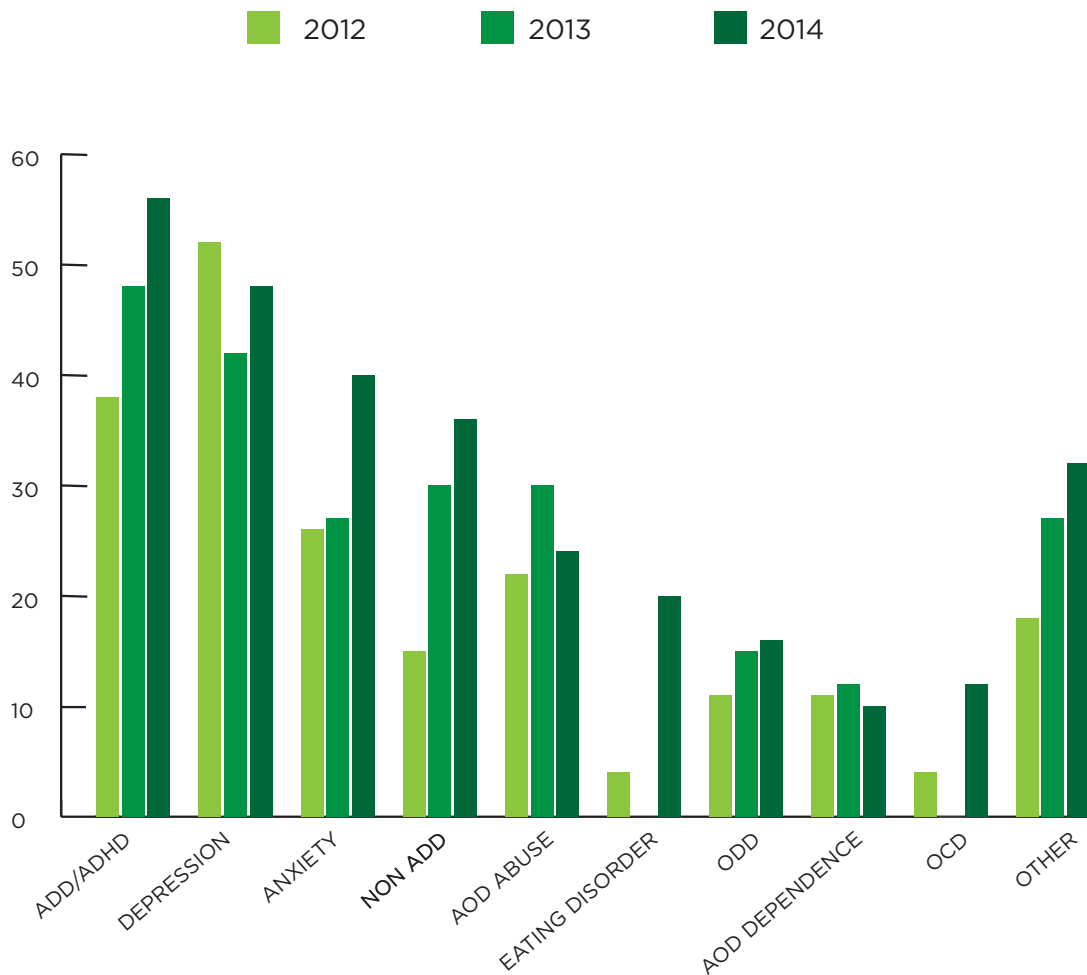
Parent reports⁷ indicate that 70% of admitted youth had a physician-diagnosed mental health disorder⁸. Of these, 29% had been diagnosed with one mental health disorder (other than substance abuse or dependence), 22% had been diagnosed with two, and 18% with 3 or more disorders (maximum 8). ADD/ADHD is the most common diagnosis, followed by depression, and anxiety.

Additionally, parents⁹ reported that 36% of admitted youth have a formally identified learning issue (other than ADD/ADHD). These include, but are not limited to, non-verbal learning disability, general learning disability, reading difficulties, processing, memory, and executive functioning issues.

Figure 3 shows the percentages of admitted youth with parent-reported mental health diagnoses and learning issues. The results suggest that with each year, PRI youth are increasingly complex.

Please note that these percentages should be read with caution. In some cases, parents might report a mental health problem without having had a formal diagnosis. Conversely, some youths may not have received a formal diagnosis due to the presence of substances, missed appointments, young age, etc.

Figure 3. Youth with Mental Health or Learning Diagnosis at Admission (Parent Report 2012 - 2014)



Before applying to PRI, most parents reported that their youth had received previous treatment. For example, for 2014 admissions 69% of parents reported previous treatment at the time of application, and 79% reported treatment while waiting.

Many PRI youth associate with deviant peers when they transition to high school. They engage in virtual relationships (e.g. texting) about 15 hours a day¹⁰ and they are typically not gamblers.

For 2014 admissions, 44% of PRI parents were living together. This varies based on year of admission; across all years, 56% of parents live together. 1% of PRI youth have experienced the death of a parent¹¹. In 2014, 9% of PRI admitted youth were adoptees. This varies by year of admission; it is typically over 10%¹².

HISTORY OF TRAUMA

Note: The data regarding abuse, suicidality, and self-harm are gathered as part of the admissions process, before youth and parents have developed a relationship with the clinical team at PRI. Therefore, these reported estimates may be under-representative of their experiences.

TRAUMA: 18% of parents reported that their child had a history of trauma; 4% physical abuse, 7% sexual abuse, 4% verbal abuse, and 4% neglect. 25% of youth reported a history of trauma; 16% physical abuse, 5% sexual abuse, 22% verbal abuse, 10% reported having been neglected, and 20% reported being bullied (often youth report experiencing more than one type of abuse).

SUICIDALITY: Parents¹³ indicated that 75% of youth have a history of suicidality; 49% reported suicidal thoughts, 7% had planned a suicide, and 19% had attempted suicide. In 55% of reported suicidality, the event occurred in the three months prior to application to PRI. Parents indicated that the median age of suicidality for youth is 15. More of the males (63%) than females had suicidal thoughts and plans (87%) but a higher proportion of females (54%) than males had attempted suicide. Of the 152 youth who answered the question, 65% reported a history of suicidality; 28% had suicidal thoughts, 14% had planned, and 23% had made an attempt to end their lives. In 28% of reported suicidality, youth indicated that the event occurred in the three months prior to admission.

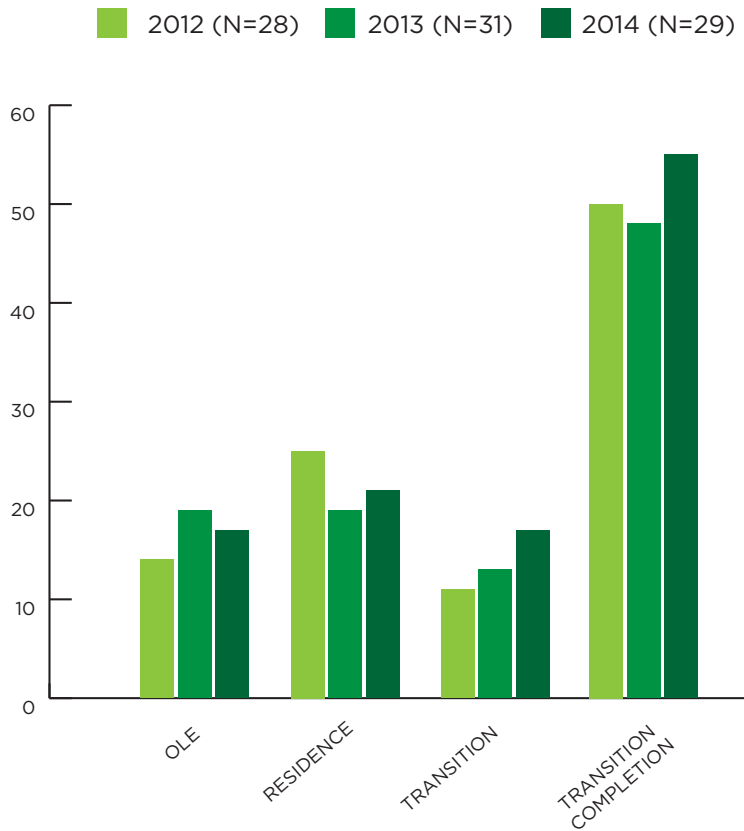
SELF-HARM: Self-harm is described as cutting, burning, removing skin, and banging against walls. Youth engage in self-harm often to cope with intense emotional distress or pain¹⁴. Self-harm is reported by parents¹⁵ for 49% of youth (42% female, 58% males). Of the youth who responded to this question¹⁶, 37% indicated a history of self-harm (43% female, 57% male).

STUDENT ENGAGEMENT

The therapeutic progression at PRI is comprised of Outdoor Leadership Experience (OLE), Residence, Transition, and Aftercare. Aftercare is very different for each family, so we focus our process and outcome report primarily on the time during which a youth occupies a bed in our program – from OLE to the last day of Transition. We call this ‘Transition Completion’. The average length of stay for youth to complete Transition was 420 days in 2014, 337 days in 2013, and 312 days in 2012¹⁷.

The percentage of students who complete Transition has been stable the last three years: 55% in 2014, 48% in 2013, and 50% in 2012 (Figure 4).

Figure 4. Phase at Departure by Year of Departure 2012 - 2014

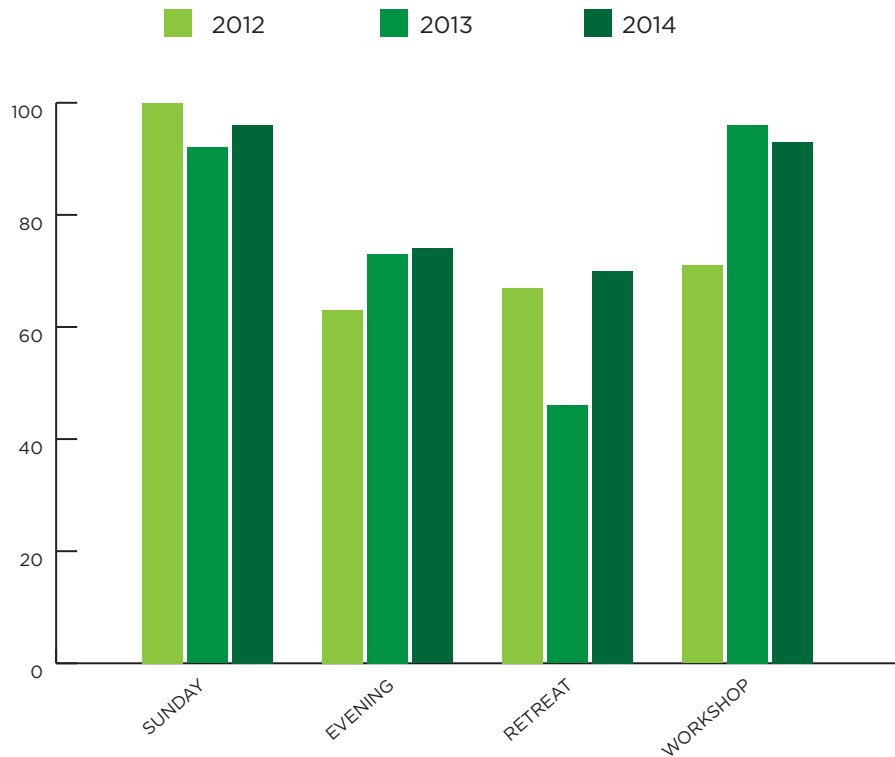


Note: In the 2014 Annual Evaluation Report, the completion rate was underestimated, citing 48% of 2012 departures and 42% of 2013. The current proportions reflect accurate completion rates. Of youth who completed OLE, 59% completed residence in 2014, 60% for 2013, and 58% for 2012.

AFTERCARE

Youth who complete transition are encouraged to participate in the Aftercare Program. This is a pay-for-service option, as Aftercare is not included as part of our funding agreement with MOHLTC (as a result of philanthropic support, PRI is able to offer bursaries to participants who cannot afford Aftercare services). In 2014, 75% of youth who completed transition participated in Aftercare.

Figure 5. Percent of Parent Engagement by Year of Departure for Families Whose Youth Reached Stage 2 (2012- 2014)



PARENT ENGAGEMENT

Parent engagement is core to the program. When youth progress past OLE, their parents/guardians are expected to participate in family group every other Sunday, evening bi-weekly parent group (in person or by teleconference), parent retreat, and two-day parent workshops twice a year. Figure 5 indicates engagement by at least one family member in each opportunity. On average, 1.8 family members were involved at each opportunity.

UNDERSTANDING OUTCOME RESULTS

A strength of Pine River Institute is its program evaluation and research. We are working toward using as many standardized tests as possible, which will result in increasingly robust results. This has not yet been achieved for all outcomes. Thus, each analysis in the report has a 'robustness rating' whose legend is found below.



GOLD MEDAL: We used a standardized measure that was matched pre-PRI and post-PRI. These measures have been tested on large samples to make sure they measure what they say they measure, and give reliable results. Matching is when we have responses from the same person pre- and post-PRI, which allows us to measure change over time.



SILVER MEDAL: We used a non-standardized measure, matched pre-PRI to post-PRI. Sometimes standardized measures don't ask what we want to know, they can be cumbersome, and they can be costly. So, we have questions that we developed. We have our own ways of scoring these, and they have not been normed.



BRONZE MEDAL: We used a standardized measure but scores were not matched pre-PRI to post-PRI. This means that we can take averages or frequencies of a group before treatment and after treatment, but they are not matched. Although this will give a general sense of pre- and post-treatment scores, it does not measure change.



GOOD EFFORT: We used a non-standardized measure, and scores were not matched pre-PRI to post-PRI. This is the least reliable way to understand treatment effectiveness, but this data is included because these questions are of interest to some of our stakeholders.

Sample Size is the biggest challenge we have for evaluation. Although we have excellent response rates from parents and youth, with only about 35 clients a year, when we interpret the results, we are aware that other youth may respond differently to treatment at PRI.

TIME POINTS. We contact families at 1, 3, 6, 12, 24, 36, 48, 60, 72, and 84 months post-treatment. We have collapsed these for the sake of sample size and simplicity into 3 post-PRI time-points: 3-6M post-PRI, 1-2 years post-PRI, and 3+ years post-PRI. When we had responses at multiple times within a collapsed category, we took the earlier of the two. For example, if parents indicated substance use at 3 and 6 months post-PRI, we kept the 3-month response.

RESPONSE RATE. Of the 300 families who have departed the PRI program, 201 parents (67%) have contributed to research at least once post-treatment, 82% if their child completed Transition. Youth response rates are lower than that of parents: 36% (43% if they completed Transition).

COMPLETERS AND NON-COMPLETERS: You will see results for 'completers' (Cs) – youth who completed Transition, and 'non-completers' (NCs) – youth who departed before completing Transition. When the differences between Cs and NCs are statistically significant, they are noted with a star * and statistical notation will be located in a footnote. Any p-value more than .05 indicates 'not statistically significant', denoted by (n.s.).

PROGRAM OUTCOMES

SUBSTANCE USE BEFORE PRI

Parents indicated that PRI youth started using substances at an average age of 13¹⁸. Regular use of substances began at 14.4 years¹⁹. The frequency of use at the time of application to PRI is reported as 'daily' by 86% of parents²⁰. The most common primary drug of choice (DOC) reported by parents is marijuana, then alcohol (Figure 6). Exhibiting addictive behaviour is the norm for PRI youth, although for some, addiction is one of many presenting issues.

Youth reported having started to use substances at an average age of 13²¹ (male and female). The frequency of use at the time of application to PRI is reported as daily by 69%²² of youth. Youth also most often reported marijuana as their primary drug of choice²³, followed by alcohol (Figure 7).

Figure 6. Primary Drug of Choice (Parent Report)

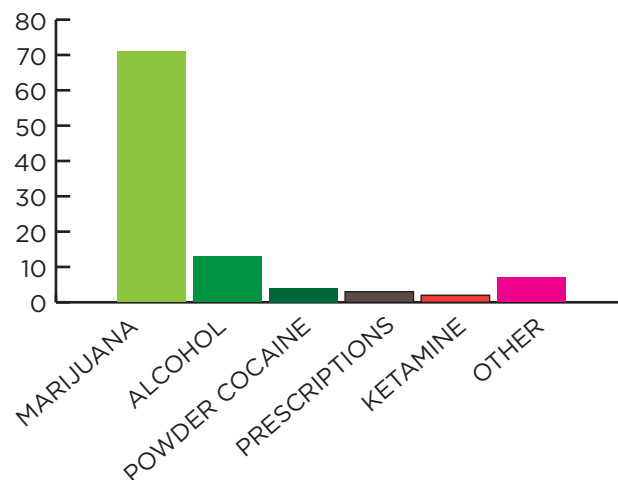
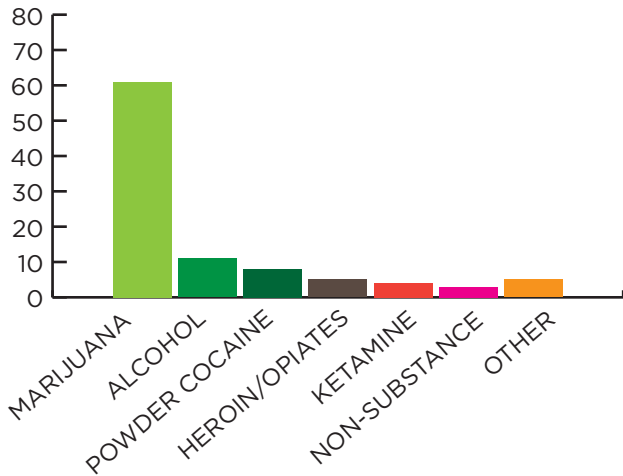


Figure 7. Primary Drug of Choice (Student Report)



One slip. One beer. He is committed to sobriety again.

Normal teen use. No problems.

She is proud of her abstinence. Today is her 3 years ...

There was one incident with the morphine and with drinking. She has been abstinent for almost 3 months.

We think that once in a while he is smoking pot.

SUBSTANCE USE AFTER PRI

In the past, we reported on youth substance use based on a tool called the AADIS²⁴. This tool is designed as a screening test and not for pre-post analyses. For example, many questions relate to reasons for first use, and age at first use. As such, post-treatment scores were always biased because some of these answers cannot indicate reduction in use. We removed this tool and will implement a new substance use tool in 2015.



We ask about youth substance use in terms of whether use is 'consistent and problematic', 'periodic slips', 'social or occasional' or 'abstinent'. Problematic use is less common and abstinence is more common for Cs than for NCs²⁵ (Table 5).

Table 5. Parent-Reported Substance Use Pre- & Post-PRI by Time and Completion

	PRE	3-6M Post-PRI*		1-2Y Post-PRI		3+Y Post-PRI	
		C (N = 55)	NC (N = 68)	C (N = 49)	NC (N = 71)	C (N = 26)	NC (N = 39)
Abstinent	2%	54%	16%	41%	22%	38%	26%
Social/Occasional	8%	27%	38%	39%	37%	27%	38%
Periodic Slips	4%	14%	22%	8%	13%	12%	10%
Consistent & Problematic	86%	4%	23%	12%	28%	23%	26%

Note: Abstinence rates are higher at 3 months (64% for Cs, 19% for NCs) than at 6 months (43% for Cs, 11% for NCs) but the same at the 1- and 2-year post-PRI times.

Table 6. Youth-Reported Substance Use Post-PRI by Time and Completion²⁶

	3-6M Post-PRI		1-2Y Post-PRI		3+Y Post-PRI*	
	C (N = 29)	NC (N = 29)	C (N = 28)	NC (N = 31)	C (N = 11)	NC (N = 17)
Abstinent	28%	21%	32%	22%	0%	17%
Social/Occasional	45%	62%	50%	54%	91%	65%
Periodic Slips	21%	10%	11%	9%	0%	12%
Consistent & Problematic	6%	7%	7%	15%	9%	6%

I am a year and 8 months sober.

Very occasional drinking. Only a couple times since I've left Pine River.

A few drinks once or twice.

*Note: We do not have data for this pre-PRI for youth as it was a recently added question.

Clinicians hear from former clients, usually when a youth calls to touch base. Clinicians are not required to follow up with former clients for evaluation purposes. Ninety (30%) youths have been in contact with their former clinician. Clinician input is recent; there is no data for 3+Y Post-PRI.

Table 7. Clinician-Reported Substance Use Post-PRI by Time and Completion²⁷

	3-6M Post-PRI*		1-2Y Post-PRI	
	C (N = 52)	NC (N = 17)	C (N = 13)	NC (N = 10)
Abstinent	54%	12%	15%	30%
Consistent & Problematic	8%	41%	8%	20%

ACADEMICS



ATTENDANCE

Most inquiries to PRI are for secondary school-aged youth. Often, however, their academic careers are sporadic, stalled, or have been abandoned. Pre-PRI, parent reports reflect a lack of school engagement (Table 8), which most youth reported as having low attendance. If youth were behind on credits, about half were behind by 1 semester and the other half by at least a year. Reasons for poor school attendance include: behavioural issues resulting in suspension or expulsion, mental health issues that act as a barrier to engagement with school, or refusal to attend for reasons such as fatigue, aches and pains, or lack of interest.

Table 8. Parent-Reported Academic Status Pre-PRI²⁸

	Percentage of Parents Indicating 'Yes'
Not Attending	28%
Attending Half or Less	45%
Attending Every Day	11%
Behind on Credits	75%

36% of youth reported not attending, 35% reported "skipping", and 29% reported attending (40% of whom are getting poor grades or failing)²⁹.

Post-PRI, parents reported that most youth are attending school, have graduated school, or are in post-secondary institutions, more so for Cs than NCs (Table 9). In the three months before parents completed the survey, the number of school days missed was 0.4 for Cs and 3.3 for NCs³⁰. Sometimes youth are not in school because they are working. For example, 1 of the 7 Cs who were not in school at 3-6M was working full-time and 1 of the 21 NCs who were not in school was working full-time.

I really saw exceptional improvement in her attitude toward school while at PRI. This attitude has carried over since she started her post-secondary education at [...] University

Is acclimatizing very well to a new city and a challenging college course.

He is doing better than expected. Studying, doing his homework, etc.

Table 9. Parent-Reported Academic Status Post-PRI by Time and Completion³¹

	3-6M Post-PRI*		1-2Y Post-PRI*		3+Y Post-PRI	
	C (N = 57)	NC (N = 76)	C (N = 54)	NC (N = 75)	C (N = 29)	NC (N = 44)
In High School	60%	56%	33%	47%	14%	23%
Graduated High School	9%	13%	17%	20%	24%	27%
In/Grad Post-Secondary	20%	4%	29%	4%	41%	23%
Not in School	12%	28%	22%	29%	21%	27%

Post-PRI Youth reports align well with parent reports; most re-engaged with their academic careers, particularly if they completed Transition (Table 10).

Table 10. Youth-Reported Academic Status Post-PRI by Time and Completion³²

	3-6M Post-PRI*		1-2Y Post-PRI*		3+Y Post-PRI	
	C (N = 29)	NC (N = 30)	C (N = 28)	NC (N = 31)	C (N = 12)	NC (N = 18)
In High School	62%	53%	39%	45%	33%	22%
Graduated High School	17%	10%	18%	10%	25%	6%
In/Grad Post-Secondary	14%	17%	29%	19%	25%	28%
Not in School	25%	28%	14%	26%	17%	44%

Clinician reports aligned with parent and youth reports. For example, at 3-6M of the Cs with whom they had contact, 5% were not in school, 60% were in secondary, 12% had completed secondary, and 23% were in post-secondary. Of the NCs, 19% were not in school, 54% were in secondary, 15% have completed secondary, 8% are in post-secondary, and 4% have graduated post-secondary.

ACHIEVEMENT

In Ontario, 60% - 75% of students in grades 3 and 6 earn A's and B's. Table II shows the historical average achievement for applicants to PRI as reported by parents. Most earned A's and B's in earlier grades but marks deteriorated over time. In grades 7 and 8, A's and B's are less common and in Grade 9, D's and failing grades are beginning to be more prominent. This timeframe aligns with the age of onset and regular use of substances by PRI youth. In most cases (93%), parents indicated that their grades in later years are not reflective of the youths' abilities.

Table 11. Historical Average Achievement for Applicants to PRI, Parent Report

	A	B	C	D	Fail
Grade 3 (N=69)	28%	57%	13%	3%	0%
Grade 6 (N=70)	21%	56%	20%	3%	0%
Grade 7 (N=71)	17%	48%	32%	1%	1%
Grade 8 (N=75)	11%	40%	39%	9%	1%
Grade 9 (N=89)	11%	25%	33%	22%	9%
Grade 10 (N=73)	4%	22%	36%	18%	21%
Grade 11 (N=49)	4%	12%	22%	33%	29%
Grade 12 (N=18)	6%	11%	17%	17%	50%

Post-PRI, academic achievement for youth improved. As seen below (Table 12), most youth who attended school were earning A's and B's and very few were failing.

Table 12. Achievement Post-PRI All Time Points, Parent Report

	A		B		C		D		Fail	
	C	NC	C	NC	C	NC	C	NC	C	NC
3-6M Post-PRI (N=77)	18%	8%	52%	54%	8%	18%	5%	5%	2%	0%
1-2Y Post-PRI (N=62)	22%	9%	48%	63%	26%	11%	4%	6%	0%	6%
3+Y Post-PRI (N=33)	20%	29%	47%	35%	27%	18%	7%	6%	0%	6%



VOCATIONAL PURSUITS

Some parents reported, post-PRI, that their child was working while in university or college, others were in the trades or retail, or held a management position. Some youth are volunteering, for example, coaching, gym, SPCA, canvassing.

Youth reported, post-PRI, that work ranged from manual labour to retail to office administration. Typically, youth noted that work is enjoyable. For youth post-PRI who are not working, many reported volunteering or actively searching for volunteer or paid positions.

Clinicians indicated that youth who were working were doing well; others were actively seeking jobs.

MENTAL HEALTH

As reported on Page 9, many PRI youth enter the program with clinically problematic scores across multiple mental health and behavioural domains. To understand scores pre-PRI, we show percentages of all youth for whom we have pre-PRI scores, regardless of their year of entry (we started measuring this in 2011). We then display the parent-reported post-PRI scores for Cs and NCs based on time since departure (Tables 13-20). For example, under Internalizing Disorders: Withdrawn/Depressed, 63% of PRI youth scored in the clinically problematic range before PRI, and 3-6M post-PRI, 6% of Cs were in this range, while 83% of Cs were in the sub-clinical range. The maintenance of healthy mental well-being is suggested by the decreased percentages of clinically problematic scores over time.

Table 13. Parent-Reported Anxious/Depressed Syndrome Scores Post-PRI by Time and Completion

Internalizing Disorders: Anxious/Depressed							
	Pre-PRI	3-6 M Post-PRI		1-2 Y Post-PRI		3+ Y Post-PRI	
	N=49	C (N=36)	NC (N=30)	C (N=37)	NC (N=34)	C (N=25)	NC (N=39)
Clinical	48%	11%	13%	12%	14%	8%	18%
Borderline	28%	11%	23%	5%	18%	8%	18%
Sub-Clinical	24%	78%	63%	81%	70%	84%	64%

Table 14. Parent-Reported Withdrawn/Depressed Syndrome Scores Post-PRI by Time and Completion

Internalizing Disorders: Withdrawn/Depressed							
	Pre-PRI	3-6 M Post-PRI		1-2 Y Post-PRI		3+ Y Post-PRI	
	N=49	C (N=36)	NC (N=30)	C (N=37)	NC (N=34)	C (N=25)	NC (N=39)
Clinical	63%	6%	20%	24%	18%	12%	15%
Borderline	28%	11%	17%	8%	15%	12%	10%
Sub-Clinical	10%	83%	63%	68%	68%	76%	74%

Table 15. Parent-Reported Somatic Complaints Syndrome Scores Post-PRI by Time and Completion

Internalizing Disorders: Somatic Complaints							
	Pre-PRI	3-6 M Post-PRI		1-2 Y Post-PRI		3+ Y Post-PRI	
	N=49	C (N=36)	NC (N=30)	C (N=37)	NC (N=34)	C (N=25)	NC (N=39)
Clinical	39%	8%	10%	16%	20%	4%	23%
Borderline	4%	3%	10%	5%	3%	12%	5%
Sub-Clinical	57%	89%	80%	78%	76%	84%	72%

Table 16. Parent-Reported Rule-Breaking Syndrome Scores Post-PRI by Time and Completion

Externalizing Disorders: Rule-Breaking Behaviour							
	Pre-PRI	3-6 M Post-PRI		1-2 Y Post-PRI		3+ Y Post-PRI	
	N=49	C (N=36)	NC (N=30)	C (N=37)	NC (N=34)	C (N=25)	NC (N=39)
Clinical	93%	0%	23%	11%	6%	16%	12%
Borderline	7%	6%	7%	14%	24%	8%	15%
Sub-Clinical	0%	94%	70%	76%	70%	76%	72%

Table 17. Parent-Reported Aggressive Behaviour Syndrome Scores Post-PRI by Time and Completion

Externalizing Disorders: Aggressive Behaviour							
	Pre-PRI	3-6 M Post-PRI		1-2 Y Post-PRI		3+ Y Post-PRI	
	N=49	C (N=36)	NC (N=30)	C (N=37)	NC (N=34)	C (N=25)	NC (N=39)
Clinical	50%	0%	3%	0%	6%	0%	0%
Borderline	19%	0%	10%	11%	0%	8%	13%
Sub-Clinical	31%	100%	87%	89%	94%	92%	87%

**Table 18. Parent-Reported Social Problems Syndrome Scores
Post-PRI by Time and Completion**

Other Problems: Social Problems							
	Pre-PRI	3-6 M Post-PRI		1-2 Y Post-PRI		3+ Y Post-PRI	
	N=49	C (N=36)	NC (N=30)	C (N=37)	NC (N=34)	C (N=25)	NC (N=39)
Clinical	26%	0%	3%	5%	3%	0%	5%
Borderline	21%	6%	7%	8%	3%	8%	15%
Sub-Clinical	54%	94%	90%	86%	94%	92%	79%

**Table 19. Parent-Reported Thought Problems Syndrome Scores
Post-PRI by Time and Completion**

Other Problems: Thought Problems							
	Pre-PRI	3-6 M Post-PRI		1-2 Y Post-PRI		3+ Y Post-PRI	
	N=49	C (N=36)	NC (N=30)	C (N=37)	NC (N=34)	C (N=25)	NC (N=39)
Clinical	45%	6%	10%	16%	15%	8%	13%
Borderline	33%	8%	17%	14%	20%	24%	13%
Sub-Clinical	22%	86%	73%	70%	65%	68%	74%

**Table 20. Parent-Reported Attention Problems Syndrome Scores
Post-PRI by Time and Completion**

Other Problems: Attention Problems							
	Pre-PRI	3-6 M Post-PRI		1-2 Y Post-PRI		3+ Y Post-PRI	
	N=49	C (N=36)	NC (N=30)	C (N=37)	NC (N=34)	C (N=25)	NC (N=39)
Clinical	39%	6%	3%	8%	3%	0%	5%
Borderline	30%	3%	27%	11%	9%	4%	10%
Sub-Clinical	31%	92%	70%	81%	88%	96%	85%



HOSPITAL VISITS

Pre-PRI, a visit to a hospital is common for PRI youth. Parents³³ reported 64% of youth had visited a hospital (e.g. emergency room visit, overnight for immediate concerns, or longer stays to stabilize behaviour), 40% of which were in the 3 months prior to applying. 35% of the most recent visits were for mental health reasons, 28% for substance use, and 36% for other reasons. If another hospitalization was reported, 49% were for mental health, 21% for substance use, and 29% for other reasons. The average stay in hospital was 8.7 days (ranging from 1/2 day to 150 days). **Note: Understanding the reason 33 N = 214 for hospitalization is complicated; 'overdose, physical injury, or accidents' might be indicative of substance use and/or other mental health issues.**

Table 21. Parent-Reported Hospitalization Post-PRI by Time and Completion

	3-6M Post-PRI		1-2Y Post-PRI		3+Y Post-PRI	
	C (N=41)	NC (N=64)	C (N=41)	NC (N=67)	C (N=18)	NC (N=39)
Substance Use ³⁴	5%	9%	2%	4%	0%	5%
Mental Health ³⁵	0%	10%*	0%	3%	0%	5%

Youth - Pre-PRI 58% reported visiting a hospital, more often for substance use than for mental health issues. Hospital visits are less common post-PRI, according to youth reports (Table 22).

Table 22. Youth-Reported Hospitalization Post-PRI by Time and Completion

	3-6M Post-PRI		1-2Y Post-PRI		3+Y Post-PR	
	C (N=33)	NC (N=31)	C (N=38)	NC (N=54)	C (N=11)	NC (N=17)
Substance Use ³⁶	3%	0%	0%	3%	0%	7%
Mental Health ³⁷	6%	0%	0%	3%	0%	6%

**POLICE CONTACT**

Pre-PRI, parents reported 62% of youth have had contact with police; of these, 50% were within three months prior to applying. Post-PRI, contact with police decreases.

Table 23. Parent-Reported Contact with Police Post-PRI by Time and Completion³⁸

	C	NC
3-6M Post-PRI (N =130)	4%	13%
1-2Y Post-PRI (N = 117)	13%	24%
3+Y Post-PRI (N = 70)	11%	10%

Pre-PRI, 72% of youth indicated contact with police; 34% of these in the three months prior to admission. Post-PRI, far fewer youth report contact with police (Table 24).

Table 24. Youth-Reported Contact with Police Post-PRI by Time and Completion³⁹

	C	NC
3-6M Post-PRI (N =57)	11%	31%
1-2Y Post-PRI (N = 58)	11%	30%
3+Y Post-PRI (N = 29)	27%	17%

Clinician reports indicated at 3-6M post-PRI, none of the Cs had been in contact with the police; 2 of the 3 NCs for whom they had information, had contact with police. This information is not available for 1-2Y Post-PRI.



RUNNING AWAY BEHAVIOUR

Youth on the run are at higher risk for being involved with crime, drugs, unprotected or forced sex, prostitution, and contracting sexually transmitted diseases. In North America, about 1 in 7 teens (14%) runs away.

By parent report pre-PRI, 60% of youth had run away, 45% of whom did so in the three months prior to application. Post-PRI, the percentage of parents who reported that youth had run away is lower than the North American average (Table 25).

Table 25. Running Away Pre- to Post-PRI, Parent Report by Time and Completion⁴⁰

	C	NC
3-6M Post-PRI (N =129)	4%	13%
1-2Y Post-PRI (N = 125)	4%	12%
3+Y Post-PRI (N = 67)	0%	2%

61% of youth reported they had run away; 24% of these in the three months prior to admission. This is reduced post-PRI (Table 26).

Table 26. Running Away Pre- to Post-PRI, Youth Report by Time and Completion⁴¹

	C	NC
3-6M Post-PRI (N =57)	4%	7%
1-2Y Post-PRI (N = 58)	0%	7%
3+Y Post-PRI (N = 28)	9%	0%

Clinicians indicated that at 3-6M, 3 of the 27 youths for whom they had information had run away (all Cs), and 1 of the 7 youths at 1-2Y had run away (an NC).

Note: Running away becomes a less meaningful health indicator as youth age and move away from home.

[name] and I are GREAT...She has been amazing about keeping healthy boundaries with her father and sister. I'm very proud of her for that.

[good scores] because he is away it has actually improved our relationship and built trust. It is hard when he is home as we are micromanaging him a bit and we have to learn to let go a bit.

Our communication has improved dramatically - there is an ability to tell each other the truth in a way that is respectful and sensitive with clear boundaries.



FAMILY PARENTS MISSING WORK

In the three months before applying to PRI, mothers missed an average 8.9 days of work due to their child's issues, and fathers missed 5.5 days⁴². Post-PRI, fewer days were missed for both parents. This is a question that we only recently started to ask, so there are not enough responses for statistical tests.

Table 27. Number of Days Work Missed for Parents Post-PRI by Time and Completion

	C	NC		C	NC
3-6M Post-PRI Moms (N=24)	0.1	1.3	3-6M Post-PRI Dads (N=17)	0.4	1.3
1-2Y Post-PRI Moms (N = 20)	0.7	1.8	1-2Y Post-PRI Dads (N = 15)	0.2	1.6
3+Y Post-PRI Moms (N = 22)	0.2	1.2	3+Y Post-PRI Dads (N = 15)	0.1	0.9



PARENTAL MONITORING

Parents reported the extent to which they were aware of where their youth were, what they were doing, and who they were with. Their responses ranged from 'Never' to 'Always'. Pre-PRI, parents reported being aware less than half of the time. Post-PRI, at 3-6M, 1-2Y, and 3-5Y, parents are aware of their youth's activities about two thirds of the time (for Cs and NCs)⁴³. Pre-PRI, youth reported their parents were aware about half the time. Post-PRI at 3-6M, 1-2Y and 3-5Y, parental awareness was reported as 'most of the time' for Cs and NCs⁴⁴.



FAMILY FUNCTIONING

Family functioning is measured with the FAD⁴⁵, scored from 1 to 4 (4 is the highest score and 3+ indicating 'healthy' functioning). Pre-PRI, parents⁴⁶ averaged 2.5. Post-PRI, 3.1 for Cs and 2.9 for NCs. At 1-2Y parent scores averaged 2.9 (Cs) and 3.1 (NCs) and at 3-5Y, 3.0 (Cs and NCs).

Youth FAD scores Pre-PRI also averaged 2.5. Post-PRI, youth scores averaged 2.9 for Cs and NCs at 3-6M. At 1-2Y, Cs 2.9 and NCs 2.8 and at 3-5Y, Cs averaged 2.9 and NCs 3.1⁴⁷.

Clinicians reported on family functioning from Poor to Excellent (a different scale than is used for parents and youth). Their results are below, indicating healthier family functioning for Cs vs NCs⁴⁸.

Table 28. Clinician Rating of Family Functioning by Time and Completion

	3-6M Post-PRI*		1-2Y Post-PRI	
	C	NC	C	NC
Poor	15%	44%	0%	10%
Fair	14%	28%	29%	30%
Good	50%	28%	64%	50%
Excellent	21%	0%	7%	10%

QUALITY OF LIFE

We measure Quality of Life (QOL) with the Personal Well-Being Index (PWI)⁴⁹, which is scored from 0 (very dissatisfied) to 10 (very satisfied), with 7–8 regarded as the North American ‘normal’ range.



The average PWI score for parents Pre-PRI was 6.8. Post-PRI, at 3–6M, their scores averaged 7.8/7.9 (Cs/NCs). At 1–2 years, the average was 7.3/7.6 (Cs/NCs). At 3–5Y Post-PRI, parents averaged 8.0/7.9 (Cs/NCs)⁵⁰.



Matched youth scores from Pre-PRI to Post-PRI (all time-points) showed an increase from 5.9 to 6.8*. Cs and NCs experienced similar increases in personal well-being over time⁵¹.

Clinicians have the opportunity to offer open-ended comments about the youths’ well-being. Many of the comments reflected that youth do well when they continue to work hard. For a few youth, there was a period or episode of collapse soon after leaving PRI, with subsequent manoeuvring back on track to health and abstinence or controlled use. Often, comments suggested that youth have developed the tools to be strong in the face of family struggles.

The transition and aftercare could have been better planned. For example, we should have made plans to enrol [name] in [...] school. He had far too much time on his hands when he transitioned.

Pine River is a very amazing and life changing experience. Nothing to change about it and I am very thankful for attending.

PHYSICAL HEALTH



BODY MASS INDEX

Most PRI youth (72%) were in the healthy BMI range at intake, with 15% underweight, 9% overweight, and 4% in the obese range. At 3-6M Post-PRI, 82% of Cs and 68% of NCs were in the healthy range, and at 1-2Y, 77% of Cs and 64% of NCs were in the healthy range. At 3-5Y, 88% of Cs and 78% of NCs were in the healthy range⁵². Often, youth who were underweight before PRI have moved into the healthy weight range Post-PRI.



NUTRITION AND EXERCISE

Pre-PRI, 26% of youths indicated eating healthy meals daily. Post-PRI, at 3-6M, 32% of Cs and 33% of NCs indicated healthy eating. At 1-2 years, 41% of Cs and 36% of NCs indicated healthy eating*. At 3-5Y, 56% of Cs and 59% of NCs indicated healthy eating⁵³.

Pre-PRI, 34% of youth indicated drinking enough water daily. At 3-6M, 45% of Cs and 40% of NCs indicated drinking enough water daily. At 1-2 years, 52% of Cs and 40% of NCs reported healthy hydration, and at 3-5Y, 56% of Cs and 65% of NCs reported healthy hydration*⁵⁴.

Pre-PRI, 17% of youth reported regular exercise, while Post-PRI, at 3-6M, 18% of Cs and 6% of NCs reported regular exercise, and at 1-2 years, 29% of Cs and 13% of NCs reported daily exercise*. At 3-5Y, 36% of Cs and 33% of NCs reported regular exercise*⁵⁵.



SOMATIC COMPLAINTS

For Somatic Complaints on the CBCL (parent reports), e.g. nightmares, aches and pains, scores of 6 (boys) and 7 (girls) are clinically problematic. Pre-PRI, the average score for youth was 3.0. At 3-6M Post-PRI, scores average 1.9 for Cs and 2.5 for NCs; at 1-2 years, 2.5 for Cs and 2.8 for NCs; at 3-5Y, 1.8 for Cs and 2.9 for NCs⁵⁶.



For Somatic Complaints on the ASEBA (youth reports), scores of 8 (boys) and 11 (girls) are clinically problematic. Pre-PRI youth scored an average of 5.5. Post-PRI, at 3-6M, scores average 3.9 for Cs and 3.8 for NCs. At 1-2 years, scores average 4.3 for Cs and 5.3 for NCs. At 3-5Y Post-PRI, scores average 2.4 for Cs and 3.8 for NCs⁵⁷.

Every student at PRI is completely unique, as is their story and experiences. Because of this, I believe that the program should be even more individualized than it already is. The closer a student gets to transitioning, the more decisions should be made based on what is best for them, rather than what is seen to be the best for most people.

SATISFACTION WITH TREATMENT AT PINE RIVER INSTITUTE

Satisfaction scores range from 1 (Very Dissatisfied) to 5 (Very Satisfied). Note that some NCs may choose to rate a program element with a low score instead of choosing 'Not Applicable' (e.g. NCs are not usually involved with Aftercare services but sometimes rate it). We will work on a solution to this in 2015.

Table 29. Satisfaction Scores for Treatment Elements by Time and Completion (Parents)

	3-6M (N = 67) ⁵⁸		1-2Y (N = 75) ⁵⁹		3-5Y (N = 67) ⁶⁰	
	C	NC	C	NC	C	NC
Admissions	4.6	4.3	4.7	4.5	4.7	4.5
OLE	4.8	4.6	4.9	4.6*	4.8	4.6
Individual Therapy	4.8	4.1*	4.6	3.9*	4.5	3.9*
Family Therapy	4.3	3.9	4.2	3.9	4.3	3.8*
Mentor	4.4	3.8*	4.2	3.6*	4.0	3.9
Front-Line Staff	4.7	4.4	4.7	4.0*	4.5	4.1
Academics	4.6	4.2*	4.5	3.8*	4.1	3.7
Parent Retreat	4.6	4.4	4.9	4.5*	4.6	4.6
Group Therapy	4.4	4.0	4.3	3.8*	4.3	3.9
Transition	3.9	2.8*	3.8	2.9*	3.6	3.3
Aftercare	3.8	2.5*	3.4	2.8	3.3	3.2
Overall Tx Quality	4.4	4.1	4.3	3.5*	4.2	3.5*

OLE and Front-Line Staff were consistently highly rated. Transition and Aftercare, although rated 'satisfactory', were our lowest-rated elements. We looked at the scores among Cs year by year (Table 29). Average satisfaction scores increased year by year, but not in a statistically significant way.

Table 30. Parent Satisfaction Scores for Transition & Aftercare for Cs by Year of Departure

Year of Departure	Transition		Aftercare	
	3-6M Post-PRI (N=38)	1-2Y Post-PRI (N=41)	3-6M Post-PRI (N=36)	1-2Y Post-PRI (N=39)
2008		4.6		3.8
2009		3.7		3.2
2010	4.0	3.5	3.8	2.7
2011	3.6	3.4	3.4	2.9
2012	4.4	4.2	4.2	4.0
2013	4.0	4.8	3.6	5.0
2014	4.0		4.3	

Table 31. Average Satisfaction Score for Treatment Elements by Time and Completion (Youths)

	3-6M Post-PRI (N = 37)		1-2Y Post-PRI (N = 45)		3-5Y Post-PRI (N = 28)	
	C	NC	C	NC	C	NC
OLE ⁶¹	4.4	4.4	4.6	4.5	4.5	4.3
Individual Therapy ⁶²	3.4*	4.1	3.6	3.9	3.9	3.7
Family Therapy ⁶³	3.2	3.5	3.3	3.0	3.0	3.6
Mentor ⁶⁴	4.1	3.8	3.7	3.4	3.4	4.0
Front-Line Staff ⁶⁵	4.4	4.5	4.0	4.1	4.1	4.0
Academics ⁶⁶	4.2	4.6	3.9*	4.1	4.1	4.0
Group Therapy ⁶⁷	3.5	3.8	3.3	3.9	3.9	3.7
Transition ⁶⁸	3.3	3.8	2.9*	3.8	3.8	3.1
Aftercare ⁶⁹	3.1	3.4	3.0	2.5	2.5	3.1
Overall Tx Quality ⁷⁰	3.4	3.9	3.4	4.1	4.1	3.8

INCIDENT REPORTS

Incidents include events such as AWOL, property damage, self-harm, and other behaviours requiring discipline and/or medical treatment. In 2014, there were 129 incidents. This can be compared to 2013 when there were 143 incidents, and in 2012, there were 129. The frequency of incidents by type is found below (Figures 8a, 8b, 8c). These figures include all incidents except medication errors, medication refusals, and disclosure of information. In 2014, the most common types of incidents were AWOL and self-harm. **Note:** In cases where multiple youth were involved, the incidents were counted as unique for each youth.

INCIDENTS BY DAY OF THE WEEK

In 2014, Sunday was the most common day of the week for incidents, with 25% occurring on this day. 24% of incidents occurred on Mondays. All other days had a proportion between 6% and 17%.

INCIDENTS BY STAGE IN THE PROGRAM

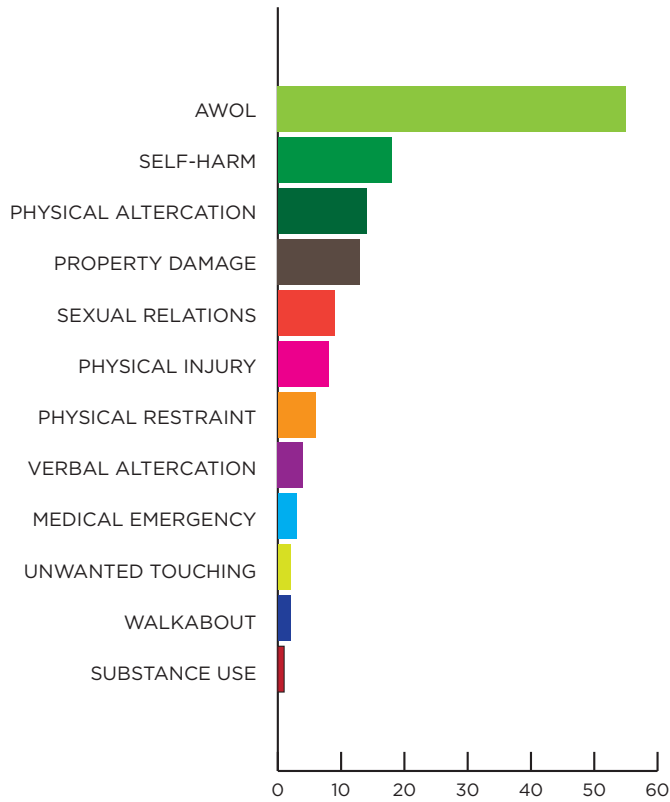
In 2014, 69% of incidents involved youth in Stage 2, the first of 4 Stages in Residence following OLE.

INDIVIDUAL INCIDENTS

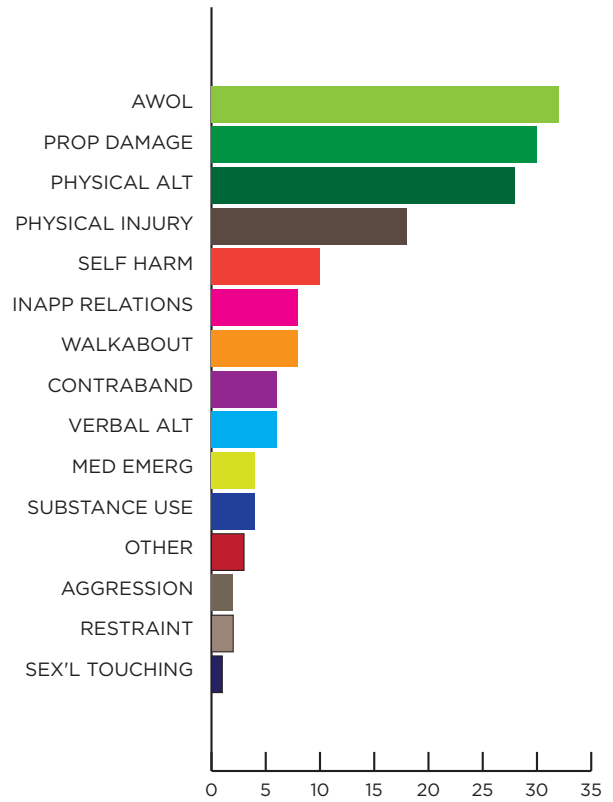
Some incidents involve more than one student; 16% of incidents involved 2 students, and 5% involved 3 students. In 2014, 61 youths were involved in the 129 incidents.

We welcome your questions, comments and suggestions regarding this report. Please contact Dr. Laura Mills, Director of Research & Evaluation at laura.m@pineriverinstitute.com.

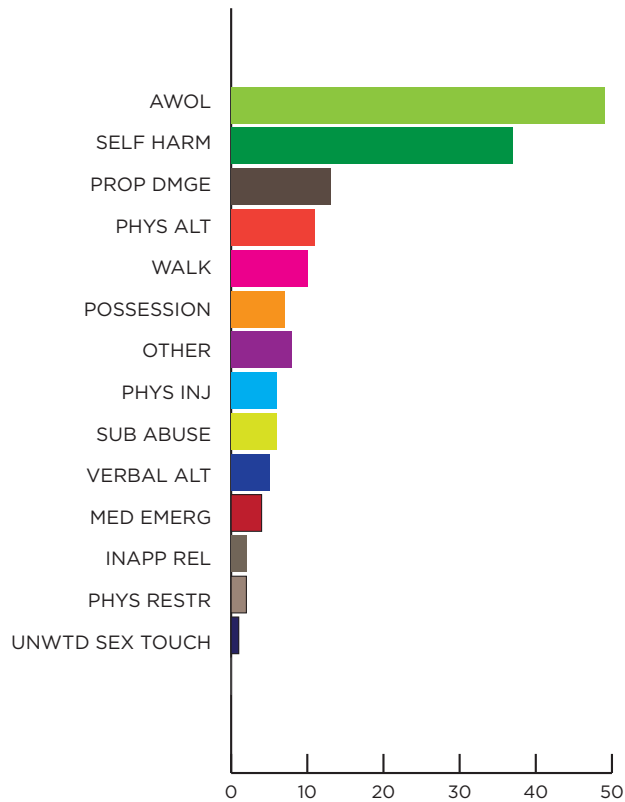
8a) Incident Types 2014



8b) Incident Types 2013



8c) Incident Types 2012



Notes:

- 1 No difference in number of inquiries between 2013 and 2014 ($\Delta 2(1)=0.2$, $p=.69$, n.s.)
- 2 In 2013, a new system of inquiry tracking was initiated that eliminated a significant number of duplicate entries.
- 3 Year by year, the amount of time clients wait is not significantly different ($F(2,70)=1.8$, $p=.2$, n.s.) Too few Private Pay clients for analyses.
- 4 Private Pay clients wait fewer days than MOH clients ($F(87)=19.5$, $p<.001$, $\Delta 2=.18$; large effect).
- 5 Proportions of male-to-female students are significantly different each year ($\Delta 2(2)=6.3$, $p=.04$)
- 6 Achenbach, T. M., & Rescorla, L. A. (2001). *Manual for the ASEBA School-Age Forms & Profiles*. Burlington, VT: University of Vermont, Research Center for Children, Youths, & Families.
- 7 $N = 267$ (64 missing)
- 8 Note that even though we specify 'physician diagnoses', some parents might report a disorder without formal diagnosis.
- 9 $N = 262$ (69 missing)
- 10 $N = 17$
- 11 Information available from 308 parents (23 were missing data).
- 12 Adoption information was available for 261 youths (70 missing). Adopted does not include youth adopted by a step-parent.
- 13 $N = 228$ (103 missing)
- 14 Richardson, Alexander, Brophy, Elizabeth, McCulloch, Sandall, et al. *Understanding Self Harm*. Mental Health Foundation (UK).
- 15 $N = 270$ (61 missing)
- 16 $N = 57$ (269 missing)
- 17 ($F(2,92)=.09$, $p=.9$, n.s.)
- 18 No difference in age at first use between males and females ($F(283)=.04$, $p=.8$, n.s.).
- 19 No difference in age at regular use for males and females ($F(248)=0.6$, $p=.4$, n.s.).
- 20 $N = 175$
- 21 No difference in age at first use between males and females ($F(156) = 0.4$, $p=.5$, n.s.).
- 22 $N = 140$
- 23 $N = 151$
- 24 Moberg, D. P. & Hahn, L. (1991). The adolescent drug involvement scale. *Journal of Adolescent Chemical Dependency*, 2, 75-88.
- 25 $C v NC$ (parents) 3-6M ($\Delta 2(3) = 21.5$, $p<.001$; $\Delta = .39$) 1-2Y ($\Delta 2(3) = 8.8$, $p = .18$, n.s.) 3-5Y ($\Delta 2(3) = 0.3$, $p = .96$, n.s.)
- 26 $C v NC$ (youths) 3-6M ($\Delta 2(3) = 7.7$, $p = .053$, n.s.) 1-2Y ($\Delta 2(3) = 5.1$, $p = .2$, n.s.) 3-5Y ($\Delta 2(3) = 33.9$, $p<.001$; $\Delta = .41$)
- 27 $N(3-6M) = 69$ ($\Delta 2(3) = 14.6$, $p = .001$); $N(1-2Y) = 23$ ($\Delta d(3) = 1.8$, $p = .4$, n.s.)
- 28 $N=89$
- 29 $N(\text{parents}) = 89$. $N(\text{youths}) = 154$.
- 30 Difference in number of missed days ($F(15)=7.0$, $p=.02$, $\Delta 2=.3$; large effect).
- 31 3-6M ($\Delta 2(3) = 11.6$, $p = .01$, $\Delta = .3$ (large effect)) 1-2Y ($\Delta 2(3) = 14.9$, $p = .002$, $\Delta = .34$ (large effect)) 3-5Y ($\Delta 2(3) = 5.7$, $p = .5$, n.s.)
- 32 3-6M ($\Delta 2(3) = 9.1$, $p = .03$, $\Delta = .21$) 1-2Y ($\Delta 2(3) = 8.4$, $p = 0.4$, $\Delta = .21$) 3-5Y ($\Delta 2(3) = 26$, $p < .001$, $\Delta = .36$)
- 33 $N = 21434$ SU Hosp : $N(3-6M) = 105$ ($\Delta 2(1) = .7$, $p = .3$, n.s.); $N(1-2Y) = 108$ ($\Delta 2(1) = .3$, $p = .6$, n.s.); $N(3-5Y) = 57$ ($\Delta 2(1) = 1.0$, $p = .3$, n.s.)
- 35 $N(3-6M) = 120$ ($\Delta 2(1) = 5.3$, $p = .02$, $\Delta = .2$ (small effect)); $N(1-2Y) = 121$ ($\Delta 2(1) = 1.4$, $p = .1$, n.s.); $N(3-5Y) = 71$ ($\Delta 2(1) = 1.3$, $p = .2$, n.s.)
- 36 $N(\text{pre}) = 147$; 3-6M $N = 58$ ($\Delta 2(1) = 1.0$, $p = .3$, n.s.); 1-2Y $N = 57$ ($\Delta 2(1) = .9$, $p = .3$, n.s.); 3-5Y $N = 20$ ($\Delta 2(1) = .4$, $p = .5$, n.s.)
- 37 3-6M $N = 64$ ($\Delta 2(1) = 1.9$, $p = .2$, n.s.); 1-2Y $N = 92$ ($\Delta 2(1) = .5$, $p = .5$, n.s.) 3-5Y $N = 20$ ($\Delta 2(1) = .6$, $p = .4$, n.s.)
- 38 Police Contact : $N(\text{pre}) = 284$; 3-6M ($\Delta 2(1) = 3.6$, $p = .06$, n.s.); 1-2Y ($\Delta 2(1) = 1.2$, $p = .3$, n.s.); 3-5Y ($\Delta 2(1) = .02$, $p = .9$, n.s.)
- 39 $N(\text{pre}) = 143$; 3-6M ($\Delta 2(1) = 3.2$, $p = .07$, $\Delta = .26$); 1-2Y ($\Delta 2(1) = 1.2$, $p = .3$, n.s.); 3-5Y ($\Delta 2(2) = 6$, $p = .06$, n.s.)
- 40 $N(\text{pre}) = 247$; 3-6M ($\Delta 2(1) = 3.5$, $p = .06$, n.s.); 1-2Y ($\Delta 2(1) = 3.3$, $p = .07$, n.s.); 3-5Y ($\Delta 2(1) = 1.6$, $p = .4$, n.s.)
- 41 $N(\text{pre}) = 247$; 3-6M ($\Delta 2(1) = .3$, $p = .5$, n.s.); 1-2Y ($\Delta 2(1) = 1.9$, $p = .2$, n.s.); 3-5Y ($\Delta 2(1) = 1.6$, $p = .2$, n.s.)
- 42 $N(\text{mom}) = 58$; $N(\text{dad}) = 52$
- 43 No difference for $Cs v NCs$: $N(\text{PRE-PRI}) = 72$; $F(3-6M)(60) = .1$, $p = .7$, n.s. : $F(1-2Y)(63) = .7$, $p = .4$, n.s. : $F(3-5Y)(51) = .1$, $p = .8$, n.s.
- 44 $N(\text{pre}) = 127$; $N(3.6M) = 30$; $N(1.2Y) = 27$; $N(3.5Y) = 19$.
- 45 Epstein, N. B., Baldwin, L. M., & Bishop, D. S. (1983). *The McMaster Family Assessment Device: General Function Sub-Scale*.
- 46 Pre-PRI $N=74$ $F(3-6M)(66) = 3.0$, $p = .09$, n.s. : $F(1-2Y)(70) = 1.8$, $p = .2$, n.s.; $F(3-5Y)(69) = .6$, $p = .4$, n.s.
- 47 Pre-PRI $N = 126$; $F(3-6M)(31) = .05$, $p = .8$, n.s. : $F(1-2Y)(25) = .08$, $p = .8$, n.s. : $F(3-5Y)(22) = .7$, $p = .4$, n.s.
- 48 $N(3-6M) = 76$ ($\Delta 2(3) = 12.0$, $p = .008$, $\Delta = .4$ (moderate)); $N(1-2Y) = 24$ ($\Delta 2(3) = 1.7$, $p = .6$, n.s.)
- 49 Cummins & Lau, 2005.
- 50 Pre-PRI $N=77$ $F(3-6M)(68) = .01$, $p = .9$, n.s. : $F(1-2Y)(70) = .4$, $p = .5$, n.s. ; $F(3-5Y)(67) = 0.1$, $p = .8$, n.s.
- 51 $F(\text{time})(40) = 7.3$, $p = .01$, $\Delta 2 = .2$: $F(\text{time by completion})(40) = .003$, $p = .9$, n.s.
- 52 Pre-PRI $N = 279$; 3-6M $N = 55$; 1-2Y $N = 66$; 3-5Y $N = 51$

- 53 N(pre) = 156; 3-6M (D2(2) = .6, p = .7, n.s.); 1-2Y (D2(4) = 11, p = .03, D = .33); 3-5Y (D2(3) = .7, p = .08, n.s.)
- 54 N(pre) = 154; 3-6M (D2(4) = 3, p = .6, n.s.); 1-2Y (D2(4) = 13, p = .009, D = .36); 3-5Y (D2(3) = 15, p = .002, D = .39)
- 55 N(pre) = 145; 3-6M (D2(5) = 9.5, p = .09, n.s.); 1-2Y (D2(5) = 14.5, p = .01, D = .38); 3-5Y (D2(5) = 15, p = .01, D = .38)
- 56 Pre-PRI N = 33; F(3-6M)(64) = .7, p = .6, n.s.; F(69) = .1, p = .7, n.s.; F(62) = 2.3, p = .1, n.s.
- 57 N(pre) = 131; F(3-6M)(28) = .01, p = .9, n.s. : F(1-2Y)(24) = .48, p = .5, n.s. : F(3-5Y)(22) = .51, p = .5, n.s. 58 F(IndTher 3-6M)(65) = 12.1, p = .001, D2 = .16 (large); F(Mentor 3-6M)(45) = 5.3, p = .3, D2 = .10 (mod); F(Acad 3-6M)(63) = 5.4, p = .2, D2 = .08 (mod); F(Trans 3-6M)(54) = 10.6, p = .002, D2 = .17 (large); F(After 3-6M)(48) = 12.2, p = .001, D2 = .20 (large)
- 59 F(OLE 1-2Y)(71) = 8.2, p = .006, D2 = .10 (mod); F(IndTher 1-2Y)(73) = 9.5, p = .003, D2 = .12 (mod); F(Mentor 1-2Y)(55) = 4.2, p = .04, D2 = .07 (small); F(FrontLine 1-2Y)(86) = 15.4, p < .001, D2 = .16 (large); F(Acad 1-2Y)(70) = 10.6, p = .002, D2 = .14 (large); F(Retreat 1-2Y)(56) = 3.9, p = .05, D2 = .07 (small); F(Groups 1-2Y)(74) = 8.9, p = .004, D2 = .11 (mod); F(Trans 1-2Y)(70) = 10.1, p = .002, D2 = .13 (mod); F(TxQual 1-2Y)(73) = 7.3, p = .009, D2 = .09 (mod)
- 60 F(IndTher 3-5Y)(65) = 6.6, p = .01, D2 = .09 (mod); F(Fam 3-5Y)(65) = 4.8, p = .03, D2 = .07 (mod); F(TxQual 3-5Y)(68) = 4.2, p = .04, D2 = .06 (small);
- 61 F(3-6M)(35) = .57, p = .5, n.s. : F(1-2Y)(43) = .67, p = .4, n.s. : F(3-5Y)(26) = .24, p = .6, n.s
- 62 F(3-6M)(35) = 10, p = .003, D2 = .23 : F(1-2Y)(43) = 3, p = .09, n.s. : F(3-5Y)(26) = .19, p = .7, n.s
- 63 F(3-6M)(32) = .89, p = .4, n.s. : F(1-2Y)(42) = .26, p = .6, n.s. : F(3-5Y)(26) = 1.8, p = .2, n.s
- 64 F(3-6M)(32) = 2.3, p = .1, n.s. : F(1-2Y)(41) = .04, p = .8, n.s. : F(3-5Y)(24) = 1.1, p = .3, n.s
- 65 F(3-6M)(34) = .82, p = .4, n.s. : F(1-2Y)(43) = 2.8, p = .1, n.s. : F(3-5Y)(26) = .27, p = .6, n.s
- 66 F(3-6M)(35) = 1.0, p = .3, n.s. : F(1-2Y)(40) = .4.6, p = .04, D2 = .10 : F(3-5Y)(26) = .04, p = .8, n.s
- 67 F(3-6M)(35) = .19, p = .7, n.s. : F(1-2Y)(43) = .2.7, p = .1, n.s. : F(3-5Y)(26) = .17, p = .7, n.s
- 68 F(3-6M)(31) = .71, p = .4, n.s. : F(1-2Y)(40) = .7.3, p = .01, D2 = .15 : F(3-5Y)(21) = 1.7, p = .2, n.s
- 69 F(3-6M)(28) = .37, p = .5, n.s. : F(1-2Y)(36) = .97, p = .3, n.s. : F(3-5Y)(22) = 1.4, p = .3, n.s
- 70 F(3-6M)(31) = 1.2, p = .3, n.s. : F(1-2Y)(24) = .97, p = .3, n.s. : F(3-5Y)(23) = .27, p = .6, n.s

I feel that PRI saved my daughter's life. It brought us back to each other and we have never been closer. She is so thoughtful and thankful now. We have both learned how to communicate, due to all the tools that we learned throughout her stay.

Very pleased with the whole experience—felt that the therapist managed our family dynamic well and guided us in a slow and steady fashion toward success.



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