

# The Pathways to Resilience Project Dalhousie University

## RESEARCH UPDATE Results from Phase One

Publication Date: May, 2009

### Executive Summary of Results

Seldom has research looked at the risks facing youth who use multiple services, the resilience of those youth, and their service use patterns. Though our work is not complete, the following are some tentative findings discussed in detail in this update:

- In the course of their service histories, youth who are most at risk are also those most likely to use multiple services.
- Service use patterns do not appear related to more resilient outcomes. Higher service use may provide care to those youth most at risk, but more services do not help youth achieve higher levels of resilience (which include individual, relational, community, and cultural strengths), suggesting that it is quality rather than quantity of service provision that has an impact on youth outcomes.
- Increased use of child welfare, mental health, and corrections services is related to increased use of each of the other services. These services are very likely to be serving the same clients.
- Students who receive special education and counselling in school, and youth who are clients of mental health services in their communities, are less likely than youth from child welfare and corrections settings to report a large number of professional supports in their lives.
- Patterns of service use suggest that youth with the most mental health needs may not be accessing mental health services. Furthermore, youth who do receive mental health services may not be those with the highest levels of need.
- Youth with the most peer and family relationship problems are found in child welfare and corrections settings, suggesting a high level of need on the part of these youth for accessible mental health services.
- Youth who receive extra support at school are more likely than other youth to report a positive attitude towards school and to express aspirations to pursue post-secondary education.

With regard to the methods used to conduct the study, we have found that:

- Receiving nominations from service providers is difficult. Despite having received approval from every organisation's ethics review committee, and ensuring that the referral process is brief, it has been a challenge to get youth referred to the study who are the ones most likely to be using multiple services. Typically, studies of at-risk youth rely on samples selected from schools, which raises serious questions about whose experience is being documented. If we are to understand the lives of the most vulnerable youth in our communities, we will need to sample them from the agencies that serve them directly.
- Interviewing the youth has been relatively easy. Youth are enthusiastic to participate. The questionnaires used are completed in less than an hour.

With regard to funding and expanding the study:

- We have, as a team of university researchers and community and government organisations, secured additional funding to complete the first wave of the study and expand its scope. Our first wave of data collection is funded by the National Crime Prevention Centre (NCPC). To this we have added support from the Atlantic Aboriginal Health Research Program and the Nova Scotia Department of Justice.
- A three-year longitudinal study of youth service users aged 13-15 has been funded by the Canadian Institutes of Health Research that will build on the results of the NCPC study.
- A wider study of resilience and risk among youth in communities facing significant risk across the Atlantic region of Canada as well as China, Colombia, and South Africa has also been funded jointly by the Social Sciences and Humanities Research Council and the International Development Research Council of Canada. This research will include funding to evaluate new community initiatives to help put research findings into practice. The research has also been funded nationally in New Zealand.

## Introduction

How do youth who face the most challenges make use of the many social services available to them? What combination of services is most likely to prevent problems and nurture resilience? Though at-risk youth form a disproportionately high percentage of clients of more than one mandated social service (such as child welfare, special education and counselling in schools, mental health services, and corrections) we still don't know very much about how young people navigate their way between services, nor how they negotiate with their care providers for what they really need.

The Pathways to Resilience Project is trying to understand these patterns. The Project is a study of at-risk youth who use more than one mandated social service. Our findings, some of which we report in this brief update, will help human services workers and policymakers make well-informed decisions regarding case planning and the use of limited financial and human resources. The research is meant to help professionals and communities distinguish aspects of young people's case plans, neighbourhoods, families, and schools, as well as personal characteristics of the youth themselves, that make it most likely that they will overcome adversity (demonstrate resilience).

## What is Resilience?

For the purposes of this research, we define resilience ecologically. Those mandated to help (social workers, child and youth care workers, psychologists, nurses, educators, etc.) are as necessary to a child's successful development into a well-functioning adult as family and peer relationships, culturally-embedded strengths (like a sense of one's traditions), safe neighbourhoods, and social policies that create the resources that young people need. Understood this way, we define resilience in the following way:

*In the context of exposure to significant adversity, resilience is both the capacity of individuals to navigate their way to the psychological, social, cultural, and physical resources that sustain their well-being, and their capacity individually and collectively to negotiate for these resources to be provided and experienced in culturally meaningful ways.*

To find out how resilient and non-resilient youth negotiate for the social determinants of health (e.g., secure attachments to caregivers, a sense of belonging to their community, personal control, adequate housing, educational opportunities) and the networks of social services that help them, we have partnered with youth, their families, community organisations, and service delivery systems that

provide support, treatment, and care to vulnerable young people. The research is currently taking place in three Canadian provinces /regions (Nova Scotia, New Brunswick, and Labrador) with young people living in very different settings (rural, urban, and suburban) and from different ethnoracial populations, including, but not limited to, Aboriginal and First Nations youth, as well as English and French speaking youth of Anglo-European descent.

## The Study and the Sample

Each of our partner organisations and services has been asked to nominate at least 40 youth to the study who are between the ages of 14 and 21, have the potential to have a person most knowledgeable (PMK) or guardian take part in the study, and have been associated with at least one other service delivery system in the past year in addition to the service nominating the youth to the study. Our goal is to include 600 young people in the study by September 2010.

To date, 322 youth have participated. Of these youth, 52 are from Labrador, 146 are from New Brunswick, and 124 are from Nova Scotia (see Table 1). Slightly more boys (179; 56%) have participated in the study than girls. This is largely as a result of the large corrections sample where more boys than girls have participated. On average, youth in this study are 17-and-a-half years old ( $M=17.61$ ;  $SD=1.954$ ).

**Table 1: Number of youth participants (including boys and girls) by site and service**

	Labrador		New Brunswick		Nova Scotia		Total		
	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	
Community-based organisation	0	0	0	0	21	18	21	18	39
Corrections (includes Justice)	0	4	2	15	15	42	17	61	78
Child Welfare (Community Services and Social Development)	5	3	24	19	7	12	36	34	70
Mental Health (includes Addictions)	0	0	19	16	4	4	23	20	43
Education (Special Education and Guidance)	22	18	23	28	1	0	46	46	92
<b>Total</b>	<b>27</b>	<b>25</b>	<b>68</b>	<b>78</b>	<b>48</b>	<b>76</b>	<b>143</b>	<b>179</b>	<b>322</b>
	<b>52</b>		<b>146</b>		<b>124</b>		<b>322</b>		

## What we are doing

The first phase of this study invites young people who are nominated by the professionals who work with them to complete the Pathways to Resilience Youth Measure (PRYM).

This comprehensive questionnaire allows us to investigate not only service use patterns and experiences of youth when using services, but also their personal, family, peer, neighbourhood, school, and community strengths and challenges. To do this effectively, the PRYM contains several validated scales. It takes approximately 50 minutes to complete. The questions are read to the youth to ensure they understand what each means and to make it easier for them to ask questions before answering.

In the next phase of the study (now being completed), eight youth from each organisation are being invited to participate in individual interviews where they will be asked about their experience with their families and service providers, the multiple risks they identify in their lives, their definition of successful outcomes, their understanding of mental health, and their suggestions for effective service delivery. The third phase of the research permits the research team to review these young people's files with each organisation where they have received service. These case file reviews help us understand the pathways young people actually travel within and between services, and how decisions regarding their care and treatment are made.

It is possible for a youth to be nominated to the study by more than one service (we sample the youth only once) or that the youth is actually more involved with a different service than the one which referred him/her to the study. For ease of discussion, however, we assume in our analysis that the service that first nominates the youth is his/her primary service affiliation.

## What We Already Know

Youth who use one mandated service are very likely to be clients of other services at the same time. For example, youth most in trouble with the law are often those with the greatest need for mental health services and responsive foster care providers (Abrams, Shannon & Sangalang, 2008; Ross, Conger & Armstrong, 2002; Loeber, Farrington, Stouthamer-Loeber & Van Kammen, 1998; Murphy, 2002; Stathis, et al., 2006). Similarly, homeless youth and children in care require intensive case management and mental health supports (Cauce et al. 1998; Fisher, et al., 2006; Grimes et al., 2006; Litrownik et al. 1999). Juvenile justice programs require strong connections with public schools to achieve effective re-integration when discharging youth back to their communities (Hellriegel & Yates, 1999; Jobes, 2004). And child welfare clients are often shown to be in need of mental health care and have higher rates of service utilization (Arcelus, Bellberby & Vostanis, 1999; Haapasalo, 2000; Kroll et al., 2002; Webb & Harden, 2003) as well as needing access to a myriad of other support services such as special schools and responsive court systems (Dohrn, 2002; Sagatun-Edwards & Saylor, 2000; Saathoff & Stoffeel, 1999; Wilson & Melton, 2002). Furthermore, when trying to understand these pathways through multiple systems, the fam-

ily's influence on the decisions that are made must also be considered (Cook-Morales, 2002). Though coordinated systems of care are mandated to respond to young people facing multiple challenges, we still know very little about children's varied developmental trajectories through these systems (Henry, Caspi, Moffitt, Harrington & Silva, 1999; Jackson & Martin, 1998).

## The Pathways to Resilience Study: Findings

To make it easier to compare different groups of youth, we have created an overall risk score and an overall resilience score based on subscales on the PRYM. These overall scores are calculated out of 100, where higher scores indicate more risk or resilience. On the whole, youth in this study scored relatively well on resilience ( $M=68.70$ ;  $SD=15.387$ ) and low on risk ( $M=38.59$ ;  $SD=17.335$ ) despite expectations that they would be more vulnerable as users of multiple services. Each province shows a slightly different pattern. In Nova Scotia, the average resilience score is 71 ( $M=70.93$ ;  $SD=12.312$ ) and the average risk score is 44 ( $M=43.53$ ;  $SD=14.333$ ). New Brunswick youth show less resilience ( $M=64.07$ ;  $SD=16.201$ ) but also lower levels of risk ( $M=39.52$ ;  $SD=17.607$ ). And in Labrador, youth score the highest of all provinces on resilience ( $M=77.39$ ;  $SD=14.527$ ;  $n=52$ ) and the lowest on risk ( $M=24.37$ ;  $SD=15.583$ ).

We suspect these results tell us more about the services from which the youth are nominated than anything important about services in each province. In the case of Labrador, for example, the majority of the youth have been referred to the study from education, meaning that the youth who are most at risk, and likely disengaged from school, are not included in the sample. It would be more useful, therefore, to look at all the youth in the sample grouped by the type of service which referred them (see Table 2).

**Table 2: Overall Risk and Resilience scores for youth by nominating service**

	Resilience*		Risk*	
	M	SD	M	SD
Community-based organisation	68.58	10.628	41.37	14.617
Corrections (includes Justice)	71.13	12.827	48.94	13.073
Child Welfare (Community Services and Social Development)	68.71	14.216	45.26	18.757
Mental Health (includes Addictions)	74.94	13.167	28.07	14.058
Education (Special Education and Guidance)	63.72	19.173	28.47	13.551
<b>Total</b>	<b>68.70</b>	<b>15.387</b>	<b>38.59</b>	<b>17.335</b>

\*Aggregated scores out of 100.

There are some noticeable differences in the amount of risk experienced by youth being served by different organisations. Youth who are part of community-based services (non-mandated service providers like youth drop-in centres) and corrections face substantially greater threats to their own development than youth referred to the study by mental health and addictions staff or by special educators and guidance counsellors in the schools. Youth who are part of child welfare services (community services and departments of social development) are less at risk than youth in community-based organisations or corrections, but more at risk than youth nominated by mental health staff and educators.

Why might some service users be more at risk than others? To understand these differences in risk scores, we can look at the personal characteristics and aspects of the social and physical ecologies (the environments) of the study's participants.

### Individual characteristics

Individual internalising behaviours are assessed by means of a depression screener (the CES-D-12-NLSCY). Results show that 39% of youth score close to the lower limit for depression (M=12.41; SD=6.978; scores of 12-20 indicate mild depression). Fifty percent of the sample experience minimal or no depression (cut-off scores being 0-11) and 11% of youth have very elevated levels of depression (the cut-off being 21-36).

Individual externalising behaviours are assessed through a cumulative score (using the 4HSQ Delinquency sub-scale, the 4HSQ Risk sub-scale, and the SDQ Conduct Problems sub-scale). Scores are calculated out of 100, with higher scores indicating more externalising behaviour. The overall average score for all youth in the sample is 43 (M=43.47; SD=24.982). The average risk score for youth in New Brunswick (M=42.42; SD=25.665) matches those of the total sample. Youth in Nova Scotia face the most cumulative risk for externalising behaviours (M=52.53; SD=21.016), while youth in Labrador face the least (M=25.34; SD=20.902)<sup>1</sup>. To help put these numbers into perspective, we can look at results for the SDQ Conduct Problems sub-scale on their own. The SDQ is a normed measure with clinical cut-offs. Scores between 0 and 3 are considered normal, 4 is borderline, and 5 to 10 are considered to indicate abnormal levels of problem behaviour. The mean score for the entire sample is 3.86 (SD=2.384). In Nova Scotia the mean score is 4.26 (SD=2.118), in New Brunswick 3.84 (SD=2.711), and in Labrador 2.83 (SD=1.700). *We suspect that the differences between sites is more the result of which services referred youth to the study rather than indicating regional differences.*

To see if patterns of internalising and externalising behaviour vary by each service provider, we next analysed the data from each type of provider across all three provinces. Differences

between service providers are significant.<sup>2</sup> Youth involved primarily with corrections show the highest levels of externalising behaviours, while youth in child welfare services show the highest average levels of internalising behaviours (mild depression). Most unusual, however, is the finding that the youth from mental health services show the lowest overall score for internalising behaviour and the second lowest score for externalising behaviour. *This finding raises serious concerns regarding whether youth with higher needs in other services are getting access to mental health services when needed.*

**Table 3: Individual characteristic scores by nominating service provider**

	Internalising*		Externalising**	
	M	SD	M	SD
Community-based organisation	11.85	7.485	49.85	17.373
Corrections (includes Justice)	12.82	6.116	62.87	19.275
Child Welfare (Community Services and Social Development)	15.23	7.697	49.38	27.053
Mental Health (includes Addictions)	9.52	5.250	30.26	21.090
Education (Special Education and Guidance)	11.56	6.941	25.86	15.497
<b>Total</b>	<b>12.41</b>	<b>6.978</b>	<b>43.47</b>	<b>24.982</b>

\*Highest possible score is 36 \*\*Aggregated score out of 100

### Relational characteristics

Most youth in the study (214; 66%) live with at least one parent. Of these 214 youth, 135 (63%) live with a birth parent. When broken down by service provider, however, the profile changes depending on which service youth come from. Only 10 (16%) of the youth referred from child welfare live with at least one parent, and of these, 9 (90%) live with one birth parent. Most youth referred from child welfare live in supervised group homes (24; 38%). Similarly, only 4 (11%) of the youth referred by community based organisations live with a birth parent, while most live either in supervised housing where they are responsible for themselves (9; 23%) or independently (19; 48%).

Given both the living arrangements of many youth in the study as well as the theoretical importance of connection to caregivers, we are able to establish a cumulative score for connection to family using family/caregiver related questions from the CYRM (Child and Youth Resilience Measure), a measure of resilience across cultures. The average score for youth in the total sample is 23 (M=23.49; SD=8.183; with a minimum score of 1 and a maximum score of 35, where higher scores are indicative of greater connection to family). Youth in Labrador have the

greatest connection to their families/caregivers, as do youth nominated to the study by mental health service providers (see Table 4).

And what about peer relationships? The SDQ Peer Problems sub-scale assesses a youth's ability to form age appropriate relationships. The scale has a minimum score of 0 and a maximum score of 10. Scores of 0–3 indicate a normal level of competence in forming peer relationships, scores of 4–5 indicate a borderline level of capacity, and scores of 6–10 indicate problems with forming peer relationships. The average score for the total sample of youth is 2.81 (SD=1.947)(see Table 4). Youth nominated from child welfare appear least likely to be able to establish age appropriate relationships with peers, while youth from corrections and mental health are most likely.

**Table 4: Relational characteristic scores by nominating service provider**

	Family/ Caregiver*		SDQ Peer Problems**		NLSCY Peer Group Behaviour***	
	M	SD	M	SD	M	SD
Community-based organisation	17.55	9.34	2.85	1.718	9.60	2.373
Corrections (includes Justice)	25.49	6.775	2.43	1.542	10.14	2.716
Child Welfare (Community Services and Social Development)	23.97	7.41	3.49	2.394	9.58	3.504
Mental Health (includes Addictions)	26.40	6.83	2.27	1.648	7.20	3.909
Education (Special Education and Guidance)	22.48	8.644	2.86	1.987	8.06	3.770
<b>Total</b>	<b>23.49</b>	<b>8.183</b>	<b>2.81</b>	<b>1.947</b>	<b>8.96</b>	<b>3.495</b>

\*Highest possible score is 35 \*\*Highest possible score is 10

\*\*\*Highest possible score is 15

A cluster of questions taken from the NLSCY (National Longitudinal Survey of Children and Youth), allows us to assess the behaviour of a youth's peer group. Scores on questions have been totalled, with a minimum score of 0 and a maximum score of 15, where a higher score represents greater risk-taking behaviours among a youth's peers. The average score for our total sample is 8.96 (SD=3.495). The peer group of youth nominated by corrections (M=10.14; SD=2.716) have the highest rate of risk-taking behaviour, while youth receiving services from mental health reported the least problem behaviours among their peers (M=7.20; SD=3.909). Differences in average scores are significant.<sup>3</sup> *Again, our results suggest that the youth being served by mental health services may not be those most at risk, and that youth with more relationship challenges are to be found in corrections and child welfare settings.*

## Community characteristics

**Education:** We examined two aspects of the youths' educational experience. First, how much do the youth value education, including their aspirations regarding future studies? Second, we asked youth about their sense of connection to their schools. If a youth was no longer in school, we asked him/her about his/her last year of formal education. The composite scales we created are both scored out of 10, where higher scores indicate more positive experiences with school.

Two hundred and fifty (78%) of the youth are still in school or completing their GED. It is important, however, to remember that despite efforts to balance the sample between all four services, the sample still contains more youth from educational settings than any other service. Of the youth who are in school, most are in Grade 10 (SD=1.395). Overall, more than half of the youth tell us that getting an education is important to them, and 61% say they would like to obtain some sort of post-secondary qualification. Collectively, youth place high value on education (M=8; SD=2.357) with most youth, regardless of referral source, indicating that getting an education is important to them. Educational aspirations vary slightly by service provider, with youth nominated by educators more likely to want to obtain a college degree, while youth referred by corrections more likely to set their sights on completing high school.

In terms of youths' connection to school, the average score for the entire sample is 6.30 (SD=1.947). Youth in Labrador have the greatest sense of connection to school (M=7.90; SD=1.348), while youth in New Brunswick have the least (M=5.90; SD=1.956). Nova Scotian youth score just above the New Brunswick sample (6.10; SD=1.819)(see Table 5).

When considering youth scores by service provider, youth receiving services from corrections report the lowest sense of connection to the schools they last attended (M=5.65; SD=1.697), while youth receiving additional educational supports report the highest scores (M=7.02; SD=1.884). Differences are statistically significant.<sup>4</sup> This should be good news for educators: *Those youth who receive extra support at school are more likely than multiple service users in other settings to report a positive attitude towards school and higher aspirations for post-secondary education.*

**Community.** Connections to one's community and feeling safe when out in that community were assessed using a compilation of questions from the CYRM and the Boston Neighbourhood Study (with a minimum score of 8 and a maximum score of 45). Higher scores indicate greater connection to com-

munity and feelings of safety. The average score for the total population is 28.67 (SD=6.936). Interestingly, youth sampled from school settings report the least connection to their communities, while those in mental health and community-based organisations report the highest levels. These findings need further exploration.

**Table 5: Relational characteristic scores by nominating service provider**

	Connection to School*		Value of Education*		Connection to Community**	
	M	SD	M	SD	M	SD
Community-based organisation	5.77	2.032	8.38	2.025	30.10	5.49
Corrections (includes Justice)	5.65	1.697	7.63	2.216	28.09	5.653
Child Welfare (Community Services and Social Development)	5.95	1.891	8.09	2.419	29.13	7.207
Mental Health (includes Addictions)	6.78	2.146	8.84	1.504	30.89	7.564
Education (Special Education and Guidance)	7.02	1.884	7.67	2.756	27.16	7.64
<b>Total</b>	<b>6.30</b>	<b>1.947</b>	<b>8</b>	<b>2.357</b>	<b>28.672</b>	<b>6.936</b>

\*Aggregate score out of 10; \*\*Highest possible score is 45

## Service use patterns

The PRYM lets us explore each youth’s service use history. To simplify our findings, we’ve aggregated responses using a ten-point scale, where higher scores indicate greater involvement with a particular type of service provider. Overall, and perhaps not surprisingly, youth report the greatest involvement with general health services (M=5.62; SD=3.638). This is followed by school supports (M=3.61; SD=4.734) and involvement with corrections (M=3.62; SD=3.039). Youth report low involvement with child welfare services (M=2.39; SD=2.656) and mental health care providers (M=2.22; SD=1.926).

For the entire sample, there is a significant relationship between young people’s use of mental health services and their involvement with child welfare ( $r=.356$ ;  $p<.00$ ). Youth involved with corrections are also likely to have had contact with child welfare ( $r=.210$ ;  $p<.00$ ). And those in corrections are likely to report using or having previously used mental health services ( $r=.274$ ;  $p<.00$ ). *These findings suggest that increased service use of one provider such as child welfare, mental health, or corrections is related to increased use of the other services.*

When service use patterns are examined for each mandated provider and the community-based organisations individually (see Table 6), we see that youth who are referred to the study by community-based organisations, corrections, or child welfare providers show much higher rates of involvement with other services than youth referred by education or mental health services. For this purposeful sample of multiple service users, youth who are clients of community organisations, corrections, and child welfare are more successful at accessing a larger number of services than youth receiving mental health or educational supports. *This pattern suggests that either clients of mental health and educational supports are not being linked to as many professional supports as other youth or that those receiving these services are not those in most need of coordinated services. Given that youth from child welfare and corrections in particular have higher levels of risk and fewer positive relationships, we are left wondering if these youths’ mental health needs are being met in other ways beyond formal services.*

To further investigate this relationship between service use patterns, level of risk, and resilience, we compared findings from all three analyses (resilience, risk, and service use patterns). As expected, we found a positive relationship between resilience and the youths’ use of general health services ( $r=.138$ ;  $p=.01$ ) and school supports ( $r=.106$ ;  $p=.03$ ). However, we also found that the higher the risk score, the more likely a youth is to have had some involvement with child welfare services ( $r=.149$ ;  $p=.00$ ), mental health ( $r=.350$ ;  $p<.00$ ), and corrections ( $r=.498$ ;  $p<.00$ ). In other words, *in the course of their service histories, youth who are most at risk are also those most likely to use multiple services.*

Further analysis, however, shows that while there is a statistically significant relationship between increased service use and elevated levels of risk,<sup>5</sup> this is not the case for resilience. This relationship exists specifically for youth referred from mental health ( $\beta=.246$ ;  $t=4.835$ ;  $p<.00$ ) and corrections ( $\beta=.433$ ;  $t=8.961$ ;  $p<.00$ ). These results help us understand the complex relationship between service use (independent variables) and outcomes (i.e., risk or resilience and the dependent variables). They might, at first glance, present us with a chicken and egg problem, suggesting that higher service use either does not lead to better outcomes, or that those youth at the highest level of risk are also those who are getting the most comprehensive set of services, even if their levels of risk continue to be high. In fact, when we take into consideration results from the analysis of resilience, where no significant relationship has been found with service use, the first conclusion has the most merit: *Increased service use does not lead to better outcomes. These findings suggest that higher service use may provide care to those*

**Table 6: Youth service use**

Services Used	Nominating Service*									
	Community-based Organisation		Corrections (includes Justice)		Child Welfare (Community Services and Social Development)		Mental Health (includes Addictions)		Education Special Education and Guidance)	
	M	SD	M	SD	M	SD	M	SD	M	SD
General Health Services	5.66	1.357	6.57	6.661	5.90	2.004	5.33	1.629	4.73	1.556
Education	3.97	6.750	3.10	1.642	3.99	4.989	4.35	6.078	3.25	4.567
Child Welfare	3.55	1.598	2.29	2.016	2.99	1.951	2.58	5.289	1.44	1.616
Mental Health	2.94	1.896	2.44	1.670	2.79	2.064	2.12	2.019	1.34	1.673
Corrections	3.70	2.304	6.90	2.082	3.37	2.755	2.41	2.693	1.54	1.800

\*Aggregate score out of 10

*youth most at risk, but it does not show that the more services youth use helps them achieve higher levels of resilience (which includes individual, relational, community, and cultural strengths). Importantly, however, the lack of a significant relationship between service use and positive outcomes suggests that fewer services do not necessarily result in resilient outcomes either.*

While number of services alone may not predict positive outcomes, better understanding of the quality of interactions and relationships between service providers themselves, as well as between service providers and youth, and the service providers and the context in which the youth lives may better predict positive outcomes for youth. As data collection continues, we will be better able to assess these relationships.

### Next steps

As the study progresses, we will continue to gather both quantitative and qualitative data from youth who are multiple service users and from a comparison group of youth sampled through community organisations. The success of this study and the value of its findings are contingent upon our ability to meet with as many youth as possible from each service provider.

### Endnotes

- 1 These differences are statistically significant [ $F(2, 318) = 25.435; p < .00; \eta^2 = .138$ ].
- 2 These differences are statistically significant [ $F(4, 318) = 41.888; p < .00; \eta^2 = .345$ ].
- 3 These results are statistically significant [ $F(4, 137.904) = 7.686, p < .00, \eta^2 = .092$ ].
- 4 These results are statistically significant [ $F(4, 321) = 7.690, p < .00, \eta^2 = .087$ ].
- 5 Using multiple linear regression analyses, the five service use variables produced an adjusted  $R^2$  of .29 ( $F(5,330) = 28.874, p = .000$ )



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