ACQUIRED
BRAIN
INJURY

Partnership Project

2010-12 Program Review

Saskatchewan
Ministry of
Health

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Executive Summary

Established in 1996, the Acquired Brain Injury (ABI) Partnership Project (hereafter referred to as the Partnership) consists of 36 community-based programs which are located across Saskatchewan. There are approximately 70 full-time equivalent (FTE) positions within these programs that are funded by the Partnership. Over the past 17 years, this collaborative approach to ABI service delivery has served over 4,300 individuals with an ABI, their families and communities.

Saskatchewan Government Insurance (SGI) has provided $66.31 million dollars in funding to the Partnership since its beginning in an effort to better the lives of Saskatchewan residents living with an ABI. In addition to the SGI annual funding, which averaged $4.9M in the two fiscal years 2010-11 and 2011-12, Partnership agencies' global, in-kind contributions averaged $2.67M annually in this two-year period. These contributions have augmented the financial resources available for ABI Partnership programming by an average of 55% annually.

This review covers the time period of April 1, 2010 to March 31, 2012, and serves to provide a snapshot of Partnership service activity and to fulfill accountability and program monitoring requirements.

In the 2010-11 and 2011-12 fiscal years, the Partnership provided service to 1,460 individuals (46% of whom were newly registered during the review period). The majority of clients were non-aboriginal males, and the most common living situation was living independently. The most common injury type in 2011-12 was stroke at 27% of clients, and injury as a result of a motor vehicle collision (MVC), also at 27%. A breakdown of service time shows that MVC clients receive the greatest proportion of service time (31%). Perhaps this is because MVC injuries receive more service hours per client than any other injury type and stroke clients receive less service time per client than all other common injury causes. In 2011-12, the ABI Partnership recorded almost sixty thousand service hours with 1,087 clients. Over half of these hours were spent on therapeutic activities. In addition, the Partnership made a total of 3,631 referrals in 2011-12 to a wide variety of programs, and engaged in 1,282 consultations. A total of 3,118 Community Group and Education and Prevention activities were recorded this period, with a total of 41,126 attendees.

As well as the ongoing reporting of our funded agencies that informs this report, three external evaluations were completed by Laurence Thompson Strategic Consulting, R.A. Malatest & Associates and BC Injury Research and Prevention Unit.

Analyses conducted on the Mayo-Portland Adaptability Inventory – 4th edition (MPAI-4), the client outcome measure utilized by the Partnership, revealed significant improvements on all subscales, and all except two inventory questions for inventories rated by service providers. Analyses done on the inventories rated by survivors and significant others also showed significant improvement on all subscales. Eighty-nine percent of recorded client goals submitted via goal attainment summary sheets attained partial or full achievement. The most common goal areas: functional independence (32% of total), psycho-social/emotional (25%) and community activities (24%), all had 80% or more partial to full achievement.

In conclusion, the Partnership appears to be meeting the unique needs of survivors as indicated by the high level of goal achievement reported, and the significant improvements shown on the MPAI-4 inventory. Referral patterns continue to suggest a strong link with other health and human services, and the practice of connecting clients to appropriate services given their unique needs. In

addition, the wide variety of education and prevention initiatives and activities illustrates the range of needs that the Education and Prevention programs are addressing, and indicates the importance of our continued efforts in this area.

Recommendations for the ABI Partnership Project include liaising with front-line staff to: 1) make improvements to our Acquired Brain Injury Information System (ABIIS), and goal attainment template, 2) to document our referral processes, 3) to develop a protocol for Outreach Team consult support to other funded agencies around confirmation of brain injury, and 4) to encourage and facilitate: a) proactive linkages between acute care and the ABI Partnership, b) addressing family needs independent of survivors, and c) the use of the Partnership's website forum. Additionally, the ABI Provincial Office will work with front-line staff to continue to assess and address family needs, continue to work on our website's utility, work on staff orientation resources and processes, and facilitate and support Partnership staff attendance at relevant regional workshops and training sessions.

INTRODUCTION

The Saskatchewan Government Insurance (SGI) and the Ministry of Health have engaged in a long standing commitment to substantially increase community-based ABI rehabilitation services. In 1995 SGI changed its procedures for compensating their insurance policy holders who had been injured in a motor vehicle collision. Policy holders were no longer eligible to claim for pain and suffering, but were compensated for accident expenses, income replacement and had greater rehabilitation benefits. This change in service and compensation was the introduction to SGI's No Fault Insurance and in conjunction with that, the development of the Acquired Brain Injury (ABI) Partnership Project (the Partnership).

The unique partnership established by SGI and the Ministry of Health set out to build "a comprehensive, integrated system of supports, resources and services that will enhance the rehabilitation outcomes and improve the quality of life for individuals with acquired brain injuries and their families"[1]. This framework for services was developed through the recommendations of SGI's Rehabilitation Advisory Board and the Acquired Brain Injury Working Group. The Partnership was to address identified gaps in services which were seen as: the facilitation of survivor service access through service coordination; services to improve life skills; avocational and vocational activities; social, recreational and leisure options; residential service options; supportive services for families; education and training on brain injuries; and prevention activities to reduce the prevalence of traumatic and other brain injuries [1].

In January 1996, the Partnership commenced as a three-year pilot project with SGI committing $9.3 million over three years from 1996 to 1998. The Ministry of Health committed to providing ongoing project management and coordination of the Partnership. Additionally, a Provincial Advisory Group was formed in an effort to provide continual consultation and advice regarding Partnership activities. Since the pilot phase, SGI has renewed funding to the Partnership in four subsequent contracts (1999 – 2003, 2004 – 2006, 2007 – 2009, and 2010 – 2012). The funded agencies encompassed under the Partnership are evaluated annually in an effort to ensure that the needs of ABI clients continue to be met. Data from these annual evaluations are rolled-up each contract period into an aggregate ABI Partnership Project evaluation report [2, 3, 4, 5]. As a result of these evaluation activities, some funded agencies have maintained funding levels, some new programs have been developed to address evaluation recommendations, while other agencies have received enhanced funding in order to meet the unique needs of ABI clients.

To date, the ABI Partnership Project remains a unique and comprehensive, integrated system of community-based supports, resources and services for ABI residents in Saskatchewan. Through a sound service delivery philosophy that includes continued program evaluations, effective project management, quality support services, as well education and prevention activities, the Partnership seeks to remain innovative and provide leadership in service delivery for ABI survivors, families and caregivers, while meeting the needs and requests of our service providers and core funder.

The Partnership

Programs

Provincial Coordination
Overall project management of the ABI Partnership is delivered through the ABI Provincial Office of the Community Care Branch at the Saskatchewan Ministry of Health. The ABI Provincial Office staff are responsible for the contract management of our tripartite agreements with our front-line service providers. This role includes program monitoring and reporting on service utilization trends, issues management, policy development and ensuring reporting compliance of our funded agency partners. The ABI Provincial Office formally reports back regarding the activities of the Partnership service continuum to our project funder, SGI and the Provincial Advisory Group at meetings held three times a year.

Direct services of the Partnership are delivered by 36 community-based programs. This service continuum is delivered through a network of health region and non-profit agency programs and includes three multidisciplinary outreach teams responsible for three broad regional service areas covering the province, and six education and prevention programs. These programs are located throughout the province and provide a range of services to individuals with ABI, their families, and communities. See Table 1 on page 12 for a listing of programs that the ABI Partnership funds separated into the three broad service areas (South, Central, and North), and by Program Category. The Partnership has the unique ability to bring together multiple service providers to address client needs in an integrated manner. The range of services is summarized as follows: assessment; case management; consultation; support; education for individuals, families and service providers; rehabilitation (direct therapy and therapeutic aid/assistance); life enrichment programming; vocational and avocational programming; and crisis management services. Partnership services fall under the following 11 program categories, excluding project management (see Appendix 1 for proportion of funding by program category and service type, and Appendix 2 for a service map that identifies program location).

Outreach Teams (3)
The Partnership funds three regional Outreach Teams based in Prince Albert, Saskatoon and Regina. These teams coordinate services province-wide by providing service coverage based on three distinct geographical service areas – North, Central and South, respectively. While at times providing direct client services, the primary function of the Outreach Teams is to provide multidisciplinary assessment, case management/coordination, consultation, as well as educational services within their regional service areas. The outreach teams assist ABI clients and their families in navigating the system of services and supports. A key impact of these teams is their ability to work with clients over the long term. The overall goal of these programs is to assist clients in their successful community integration and improved quality of life.

Regional Coordinators (5)
There are five ABI Regional Coordinator positions within the province located in Moose Jaw, North Battleford, Swift Current, Weyburn, and Yorkton. The goal of the Regional Coordinators is to assist clients to reintegrate into their home community and bridge the gap in services between acute care/rehabilitation and the community. Like the Outreach Teams, they provide case

management/coordination, consultation and educational services in their region to promote community integration and improved quality of life of the individual with ABI.

Independent Living Worker Programs (3)
There are three Independent Living Worker Programs (ILWPs) operating out of SMILE Services (Estevan), SIGN (Yorkton), and Thunder Creek Rehabilitation Association (Moose Jaw). The ILWPs participate in the coordination of services for clients with ABI and provide individualized direct care and support. Services include, but are not limited to, life skills, rehabilitation, recreational activities, and a/vocational support.

Residential Options (2)
There are two Residential programs dedicated to serving the needs of survivors. Phoenix Residential Society – Pearl Manor is situated in Regina and is mandated to act as a provincial resource, and the Sask North Independent Living Service in Prince Albert serves the northern region. The goal of these programs is to enable individuals with ABI to live more independently in the community with improved quality of life by assisting in the restoration of as much functional ability as possible.

Rehabilitation Programs (6)
These services include the three regional branches of the Saskatchewan Association for the Rehabilitation of the Brain Injured (SARBI) located in Regina, Saskatoon, and Kelvington. These services also include the Speech and Language Pathologist (SLP) located in Melfort and the two Rehabilitation Services programs serving the Keewatin Yatthé, Mamawetan Churchill River and Athabasca Health Authorities that are currently sub-contracted through Prince Albert Parkland Health Region.

The SARBI programs provide staff-directed and volunteer–assisted services focused on increasing independence through slow-stream and psychosocial rehabilitation. The SLP based out of Melfort provides assessments and works to improve communication skills of individuals within the Kelsey Trail Health Region. The goal of the northern Rehabilitation Services is to restore, maintain, and enhance function and quality of life by targeting service to residents living in the more remote areas of the province.

Children's Program (1)
Radius Community Centre, located in Saskatoon is the only program within the Partnership that offers programming exclusively for children and adolescents. The goal of Radius' Community Integration Program is to facilitate age-appropriate integration opportunities for children and youth with acquired brain injury in their own community.

Vocational Programs (3)
Partners in Employment, a program of the Saskatchewan Abilities Council, in Regina and Saskatoon, along with Multiworks in Meadow Lake provide individualized support and training/rehabilitation to individuals with ABI who are interested in obtaining or maintaining employment. The goal of the vocational programs is to improve the quality of life of survivors by enhancing community integration and increasing functional productivity.

Life Enrichment Programs (3)
There are three ABI Life Enrichment Programs operating out of the Regina, Saskatoon, and Yorkton branches of the Saskatchewan Abilities Council. These programs promote and facilitate

personal and social rehabilitation, through recreation and leisure activities for those that may or may not be capable of returning to the competitive workforce. Based on client interests, activities are organized individually or for a group. These programs assist clients in developing social skills, as well as exposing clients to new experiences.

Crisis Management Services (2)
Mobile Crisis Services located in Regina and Crisis Intervention Services located in Saskatoon, both provide crisis management services for survivors of ABI. These programs provide case management services when mainstream services have been unsuccessful. They also provide crisis intervention services on a 24-hour availability.

Day Programs (2)
Lloydminster & Area Brain Injury Society (LABIS) and Sherbrooke Community Centre "Moving On" program (Saskatoon) are the two day programs funded by the Partnership. These programs both offer programming two days a week. The programming includes physical and cognitive exercises and life skills with an overall goal to promote independence and community integration.

Education and Prevention Programs (6)
This program category includes three Regional Education and Prevention Coordinators (Regina, Saskatoon, and Prince Albert), the Saskatchewan Prevention Institute (SPI), Saskatchewan Brain Injury Association (SBIA) and the Provincial Education and Prevention Coordinator. The Regional Education and Prevention Coordinators assist communities in developing and facilitating effective injury prevention strategies and work on raising the awareness of the effects of ABI through ongoing education initiatives. SPI, a provincial program located in Saskatoon, develops and implements evidence-based resources and programs available to professionals and the public to prevent injuries in children. SBIA is a provincial grassroots organization that receives funding to provide support to survivors and families through support groups, education events and resources.

Table 1: Acquired Brain Injury Partnership Programs by Program Type and Service Area

Program Type	SOUTH	CENTRAL	NORTH
Outreach Teams	Sask South Outreach Team	Sask Central Outreach Team	Sask North Outreach Team
Regional Coordinators	Cypress Five Hills Sun Country Sunrise	Prairie North	
Education & Prevention Coordinators	South Coordinator (Regina)	Central Coordinator (Saskatoon)	North Coordinator (Prince Albert)
Children's Program		Radius	
Crisis Programs	Mobile Crisis Services - Regina	Crisis Intervention Services - Saskatoon	
Day Programs		LABIS (Lloydminster) Sherbrooke "Moving On" (Saskatoon)	
Independent Living Programs	SIGN ILWP - Yorkton SMILE Services ILWP- Estevan Thunder Creek Rehab ILW - Moose Jaw		
Life Enrichment Programs	Saskatchewan Abilities' Council - Regina Saskatchewan Abilities' Council - Yorkton	Saskatchewan Abilities' Council - Saskatoon	
Rehabilitation Programs	SARBI - Regina	SARBI - Saskatoon	East Central SARBI - Kelvington Kelsey Trail RHA SLP - Melfort
Residential Programs			Residential Options Program - P.A.
Vocational Programs	Saskatchewan Abilities' Council - Regina	Saskatchewan Abilities' Council - Saskatoon Multiworks - Meadow Lake	

Provincial Programs

Education and Prevention Program: Saskatchewan Brain Injury Association (Provincial Resource) - Moose Jaw, Satellite Office in Saskatoon
Education and Prevention Program: Sask Prevention Institute (Provincial Resource) - Saskatoon
Residential Program: Phoenix Residential Society ABI Program "Pearl Manor" (Provincial Resource) - Regina

Funding

SGI

From 1996 – 1998, SGI committed 9.3 million dollars ($3.1M annually) to the initial three-year pilot phase of the Partnership. After this time a program evaluation was completed and SGI renewed their funding by committing $17.83M over five years from 1999 – 2003. At the end of the five-year contract, a second evaluation was completed with a focus on program and client outcomes. SGI once again renewed funding for another three years from 2004 – 2006 and committed an additional $11.36 million dollars. A third evaluation was completed at the end of the 2005 – 2006 fiscal year at which time SGI's funding commitment became $12.91M in funding for the contract period of 2007 – 2010. In the 2007 – 2010 contract period, an internal program review was completed reporting program activities undertaken during this timeframe, client service utilization data, positive trends on the two client outcome measures utilized (Mayo-Portland Adaptability Inventory (MPAI-4) and goal attainment), along with recommendations for continued program improvements. Since its inception in January 1996, SGI has committed $66.31M in total funding to the Partnership, including $14,898,838 in new funding for the current three-year contract period which began April 1, 2010 and will end March 31, 2013.

In-Kind Contributions

In order to obtain an accurate picture of the additional funds that assist in the delivery of ABI programming and services, ABI Partnership agencies have been asked to submit information regarding their in-kind contributions over the last two contract periods. These contributions demonstrate the degree to which our programs supplement their operations outside of the SGI grant dollars that they receive.

Such in-kind contributions include additional grants or fundraising efforts, human resources (administrative, clinical, information technology, volunteer and practicum students), building occupancy, travel, program and office supplies, training, and professional fees.

Funded agencies were requested to review the in-kind contributions that they have been reporting year-to-year over the last three contract periods and to ensure that their information is updated to account for inflation. In addition to in-kind expenses reported, in-kind revenue sources were additionally added to this calculation in this contract period. Over the first two years of reporting for this 2010-13 contract period, funded agencies reported in-kind contributions at $2.4M in 2010-11 and $3.0M in 2011-12 for an annual average of $2.7M or an average augmentation of 55% to Partnership global funding in this contract reporting period.

2010 – 2012 REVIEW

Methodology

In the last (2007 – 2010) program review, the Partnership reflected on the events and activities that occurred during that time period by reviewing three main areas: Partnership service provision, client outcomes and education and prevention activities. This review process continued in this contract period. As was determined prior to the 2007-10 program review, the composition and functioning of the Partnership has been fairly stable since the beginning of the program, and process, outcomes, cost, and stakeholder satisfaction have all been thoroughly examined. Through the regular reporting of our funded agencies, analysis of service utilization trends in the Acquired Brain Injury Information System (ABIIS), and the review of the three external evaluations conducted this contract period, the Partnership continues to look to areas of program improvement.

Similar to the 2007 – 2010 Program Review, this report will summarize the events and activities that occurred during this contract period, 2010-12. This review will cover services delivered directly to survivors and families, education and prevention activities, and public relations activities (e.g., the Partnership's website). The Partnership is continually reviewing ways to improve program areas while capitalizing on current resources.

ABI Information System (ABIIS)

Since 2000, programs funded by the Acquired Brain Injury Partnership have been required to input all of their service statistics into the ABIIS. This database contains information on client demographics, client referral source, and the types of services provided to clients and their families. The ABIIS also contains a section for consultations which are events that occur between a funded agency and another person (other funded program, health professional, other professional, survivor, family of a survivor, etc.) regarding a survivor that is not registered in the information system. The ABIIS also tracks education and prevention activities including the time taken to prepare education events, and information about the delivery of the event including duration of the event, number of attendees, and topic area. This 2010-12 Program Review will summarize and present information from all of these information areas within ABIIS.

Annual Reporting

As part of funded agency accountability requirements, funded agencies are required to report annually to Health by April 30th of each year, and are asked to report back on program activities within their respective programs over the previous fiscal year. Information requested from the funded agencies includes financial (year-end financials, next year's budget and in-kind financial contributions), and statistical data (ABIIS) reporting along with qualitative responses that may include supplemental information requests that are often different from year-to-year. Supplemental information requests for this contract period include:

- 2010-11 – funded agencies provided information on intake and assessment procedures and tools, including processes to gain client consent and to confirm brain injury, and
- 2011-12 – funded agencies provided information on Partnership funded staffing including qualifications, hours of service and current salaries.

Client Outcome Reporting

Since the establishment of the Partnership in 1996, four evaluation reports have been produced: 1998, 2004, and 2006, and 2009 [2,3,4,5]. As the composition and functioning of the Partnership has been relatively stable since 1996, the last program review[5], as well as the current review, will take a reduced program monitoring focus. Thus, the only client outcome measurements now required to be submitted to the Provincial Office include annual Goal Attainment summaries, and Mayo-Portland Adaptability Inventories filled out by staff, survivors, and significant others. These two client outcome measures are presented following the section on ABIIS statistics.

DIRECT CLIENT SERVICES

Partnership Demographics

Full Time Equivalents (FTEs)

In addition to the regular (annual) reporting on FTEs, for the 2011 – 12 Annual Report the Partnership requested that each funded agency provide information regarding current staffing as funded by the Partnership. Funded agencies provided information on position title/classification, regular hours worked per position per annum, qualifications and hourly rate of pay (and, if applicable, pay range). This information will be utilized to determine program inputs that relate to staffing for funding renewal preparation.

As reported at the end of the 2011-12 fiscal year, a total of 66.9 direct service FTEs are funded by the Partnership, in addition to 2 FTEs dedicated to project management and 1 FTE dedicated to education and prevention coordination for a total of 69.9 FTEs*. The following Table displays the distribution of FTEs by health region and program category.

*Note: This is a reduction of FTEs from those reported last Program Review period. This is because some funded agencies have previously provided FTE counts in addition to those directly funded by the ABI Partnership.

Table 2: Full Time Equivalents Funded by the ABI Partnership Project, 2011-12

RHA	Outreach Teams	Rehabilitation	Prevention/Education	Regional Coordinator	Vocational	Life Enrichment	Children's Program	Crisis Management	Day Program	Residential Options	Independent Living	Total
Cypress				1								**1.0**
Five Hills			0.75	0.8							0.6	**2.2**
Heartland												**0.0**
Keewatin Yatthé		*										**0.0**
Kelsey Trail		2										**2.0**
Mamawetan		*										**0.0**
Prairie North				1	0.3				1			**2.3**
Prince Albert Parkland	6.37		1								2.5	**10.5**
Regina	11.35	1.25	1		1	1		0.5		8.9		**25.0**
Saskatoon	9.2	2.5	2.2		2	1	2	0.5	0.6			**19.6**
Sun Country				1							1	**2.0**
Sunrise				1		0.5					0.9	**2.4**
Total	**26.9**	**8.9**	**5.0**	**4.8**	**3.3**	**2.1**	**2.0**	**1.0**	**1.6**	**8.9**	**5.0**	**66.9**

* Indicates services subcontracted with Prince Albert Parkland Health Region.

Client Demographics

As of March 31, 2012, the ABI Partnership Project has provided services to 4,327 ABI clients. Between April 1, 2010 and March 31, 2012, a total of 1,460 individuals received service, 673 of which were new clients. Similar to previous years, the majority of clients were non-aboriginal males, with the largest proportion of clients living independently in their own or family home. The most common cause of injury in 2011-12 was related to strokes at 27%, and to motor vehicle collisions (all types) also at 27%.

Table 3: Client Demographics (April 1, 2010 - March 31, 2012)

2010 - 11 Demographic Variable Total (N = 1,117 Discrete Clients), April 1, 2010 – March 31, 2011
2011 - 12 Demographic Variable Total (N = 1,087 Discrete Clients), April 1, 2011 – March 31, 2012

	2010 - 11		2011-12	
Gender				
Female	383	34%	391	36%
Male	733	66%	694	64%
Ethnicity				
Non-Aboriginal	800	72%	776	71%
Status Indian	180	16%	160	15%
Non-Status Indian	20	2%	15	1%
Metis	18	2%	10	1%
Unspecified	72	6%	97	9%
Unknown	27	2%	29	3%
Client Age (Years)				
17 and under	69	6%	60	6%
18 - 24	110	10%	113	11%
25 - 29	83	8%	61	6%
30 - 39	147	13%	136	13%
40 - 49	182	17%	158	15%
50 - 59	249	23%	260	25%
60 - 69	147	13%	158	15%
70 - 79	68	6%	73	7%
80 - 89	35	3%	24	2%
90 and over	9	1%	10	1%
Cause of Injury				
MVC Vehicle/Motorcycle (All types)	316	27%	297	27%
Stroke	299	26%	311	27%
Tumour	95	8%	89	8%
Fall	88	8%	79	7%
Other (not Traumatic Brain Injury)	75	6%	75	7%
Blow to head (assault)	74	6%	63	6%
Aneurysm	59	5%	62	5%
Traumatic Brain Injury (other)	37	3%	36	3%
Other	122	10%	125	11%

	2010-11		2011-12	
Home Health Region				
Regina Qu'Appelle	324	28%	324	29%
Saskatoon	270	24%	282	26%
Prince Albert Parkland	112	10%	107	10%
Five Hills	80	7%	63	6%
Kelsey Trail	71	6%	61	6%
Prairie North	70	6%	92	8%
Sun Country	65	6%	55	5%
Sunrise	59	5%	48	4%
Cypress	34	3%	30	3%
Mamawetan Churchill River	26	2%	17	2%
Keewatin Yatthe	16	1%	8	1%
Heartland	8	1%	14	1%
Athabasca	1	0%	1	0%
Current Living Situation				
Independent in own or family home	480	38%	445	37%
Supported with limited assistance	128	10%	140	12%
Supported requiring assistance	123	10%	112	9%
Independent with difficulty	116	9%	136	11%
Supported in own or family home	98	8%	75	6%
Long Term Care facility	69	5%	56	5%
Personal Care Home	52	4%	52	4%
Child (under 18) requiring extra support	40	3%	47	4%
Supervised	38	3%	44	4%
Other	116	9%	104	9%
Employment				
Unemployed	234	18%	220	20%
Unemployable	230	18%	243	18%
Currently Medically Restricted	210	17%	204	17%
Retired	143	11%	142	12%
Student	126	10%	111	9%
Part Time Competitive	76	6%	64	5%
Full Time Competitive	62	5%	71	6%
Other	186	15%	176	14%
Education Level				
Secondary School	617	51%	597	51%
Elementary School	275	23%	241	21%
Post-Secondary	250	21%	268	23%
Pre-School/Kindergarten	20	2%	12	1%
None	39	3%	48	4%

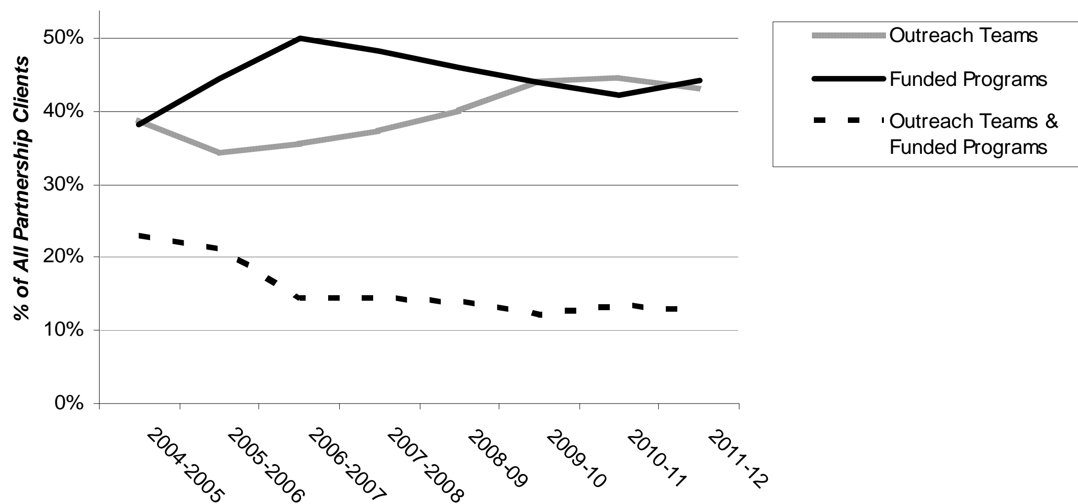
* Note: Due to coding in the ABIIS, these variables do not add up to the total discrete client count.
Source: ABI Information System

Program Membership

There are two main program categories in the Acquired Brain Injury Information System (ABIIS): funded and outreach programs. The category "outreach" includes the three outreach teams located in Regina, Saskatoon, and Prince Albert that are each responsible for a broad service area. "Funded" programs represent all other programs. Figure 1 shows a summary of discrete clients and their membership with either outreach only, funded program(s) only, or membership with both an outreach team and a funded program(s) over the last eight fiscal years.

Figure 1: Percentage of Partnership Clients registered with Outreach Teams, other Funded Programs, or both, 2004-12

Program Membership	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Outreach Teams	367	316	337	353	404	463	491	445
Funded Programs	359	409	470	455	461	461	464	457
Outreach Teams & Funded Programs	215	194	136	136	138	126	146	130
Total	941	919	943	944	1003	1050	1101	1032



That over half of clients are involved with a funded program indicates that there is a diverse range of service needs beyond case management – the primary service of the outreach teams. Figure 1 shows a continuing downward trend of clients that are involved with both an outreach program and a funded program. This trend has been noted in the previous two evaluations, and as indicated in the 2007-10 Program Review, may indicate the sequential nature of program involvement; that is, survivors move from outreach team membership to funded program membership. Additionally, many funded programs provide longer-term supports to clients, and thus these long-term clients may be less likely to be involved with outreach teams. Figure 2 shows length of program membership for all active clients in 2011-12 by program type.

Figure 2: Client Registrations by Program Type and by the Number of Years since Registration (Rounded Down to the nearest Year; calculated as of March 31, 2012)

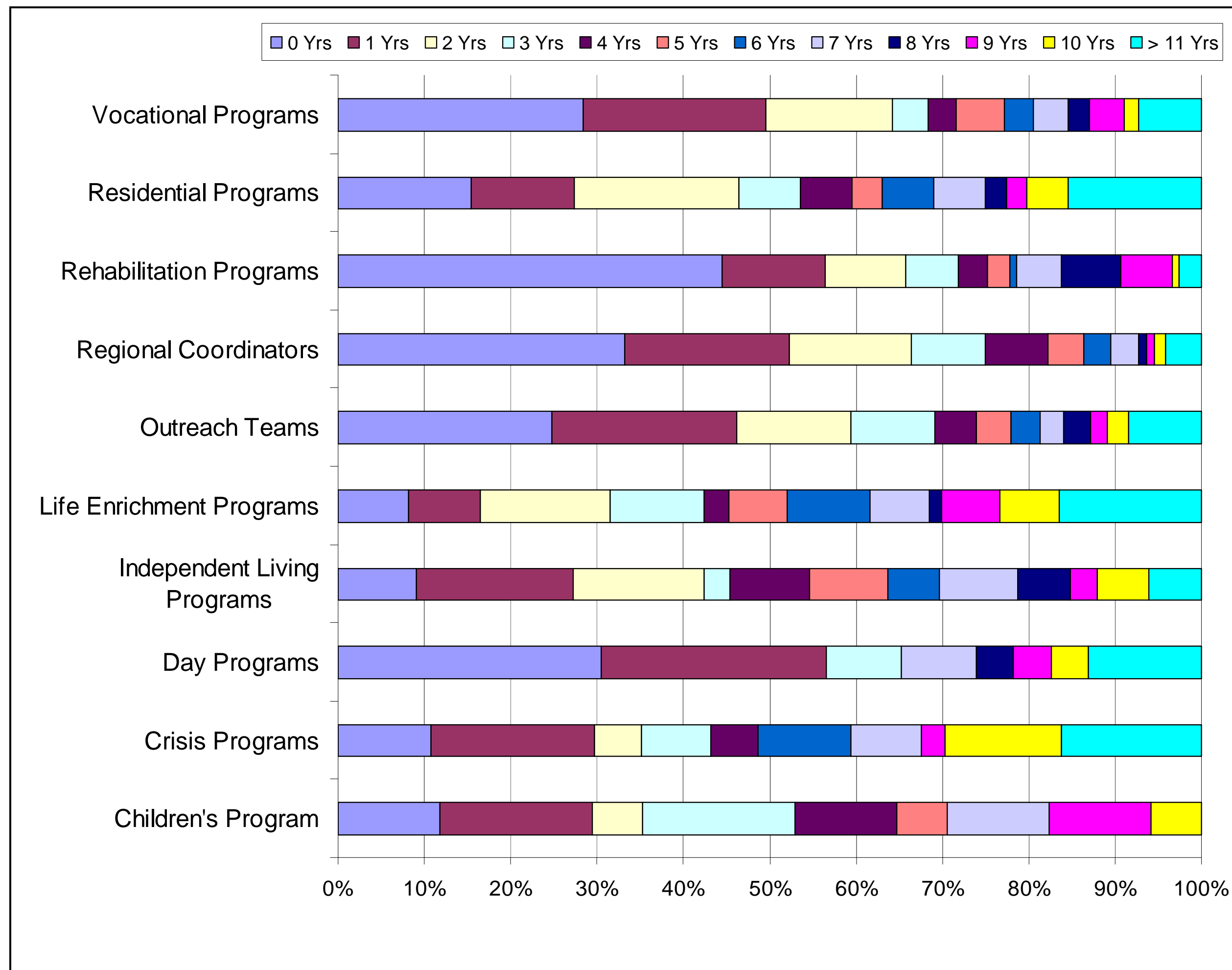


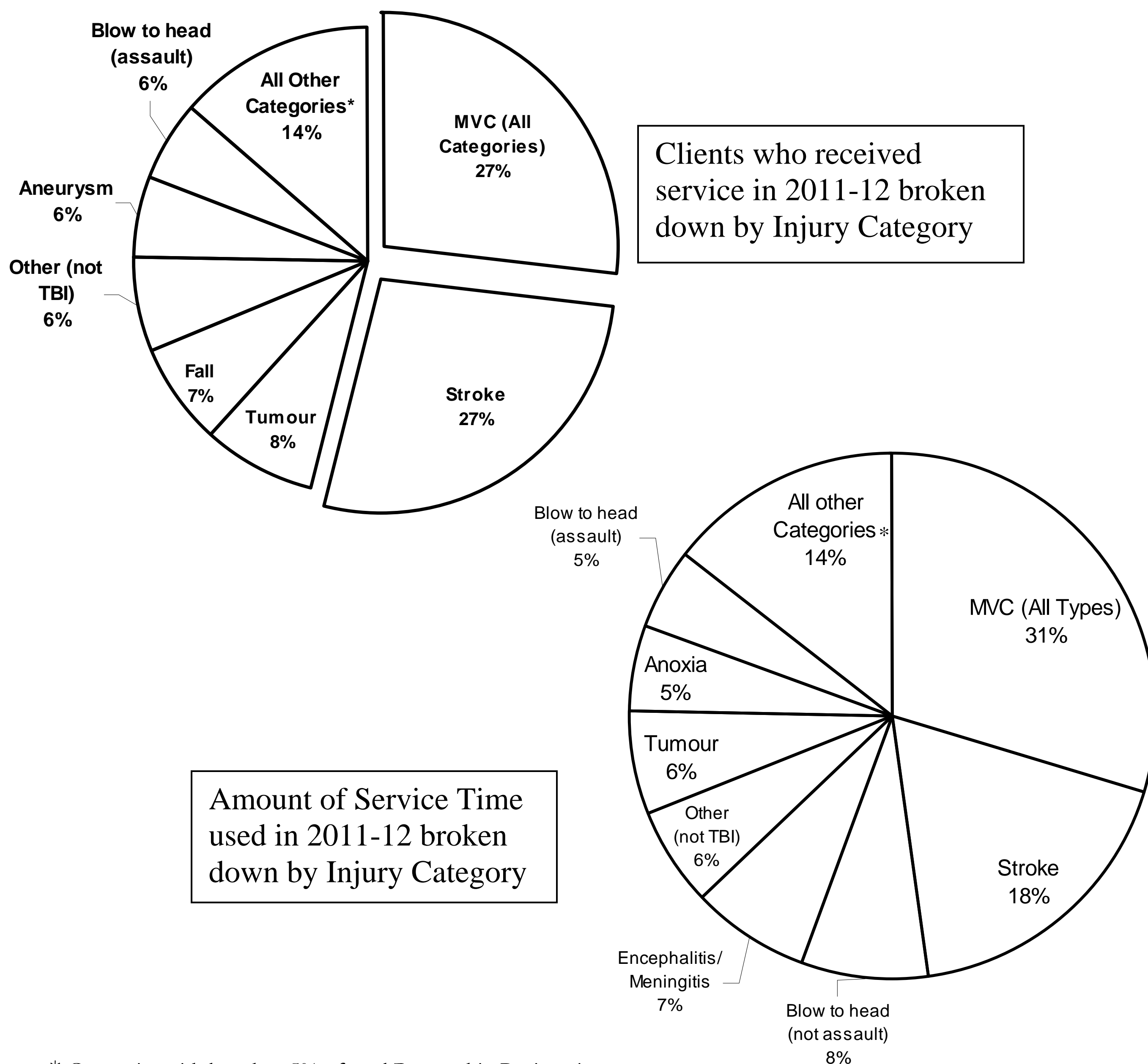
Figure 2 shows that length of program involvement varies greatly depending on the program category. For example, more than half of the regional coordinators' clients have had less than 2 years of service whereas only 17% of life enrichment clients have had less than 2 years of service. In fact, over half of life enrichment clients have been receiving service for 5 or more years. Life enrichment is a long-term support that many survivors benefit from; however, the case management provided by regional coordinators is most often needed for a shorter period of time.

Although the reason for this downward trend in the number of clients involved with both outreach teams and funded programs may be due to these factors (sequential program involvement from outreach team to funded program, and longer involvement of clients in funded programs), it is not certain, and thus, this trend may warrant further examination in the future.

Cause of Injury

For the 2011-12 fiscal year, a total of 1,087 Active Clients with a total of 1,338 client registrations were recorded in ABIIS (a single client can be involved in multiple programs, hence, the number of registrations is higher than the number of clients). Figure 3 shows these 1,087 clients broken down by recorded cause of injury.

Figure 3: Cause of Injury Breakdown based on discrete registrations from 2011-12



* Categories with less than 5% of total Partnership Registrations

ACQUIRED BRAIN INJURY Partnership Project

As shown in Figure 3, the cause of injury breakdown in registration numbers does not match the breakdown of service time. That is, while the Motor Vehicle Collision (MVC) and Stroke categories when taken together comprise over half of the clients receiving service from the Partnership, they make up less than half of the Client service time. This is because some injury categories typically receive a greater amount of service time per client than other categories. Table 4 shows the average service time received per client registration in the 2011-12 fiscal year. This Table shows that of the cause of injury categories that make up more than 5% of total registrations, clients registered with a Motor Vehicle Collision (MVC) as their cause of injury receive the greatest average amount of service time per year at 44 hours, followed by other (not TBI), Blow to Head (Assault), Aneurysm, Tumour, Fall, and then Stroke. Injuries that occur from things such as MVCs and other events that involve forceful blows to the head can cause a great deal of trauma, and it may be that these injuries create a more extensive and/or complex constellation of needs, and thus require more services and service time.

Table 4: Client Registrations from 2011-12 by the Average Service Hours received per Registration broken down by Cause of Injury Category

Cause of Injury	Average Hours per Registration	# of Registrations
MVC (All)	44	365
Other (not Traumatic Brain Injury)	42	83
Blow to head (assault)	36	77
Aneurysm	33	80
Tumour	32	106
Fall	29	87
Stroke	27	360
Injury Categories making up less than 5% of total Registrations		
Blow to head (not assault)	74	14
Anoxia	63	45
Encephalitis/Meningitis	62	34
Penetrating (missile wounds)	56	4
All-Terrain Vehicle (ATV) Crash	43	7
Traumatic Brain Injury (other)	41	37
Blow to head (sports related)	41	6
Bicycle	18	9
Shaken baby syndrome	14	11
Snowmobile Crash	12	7
Blow to head (diving accident)	7	2

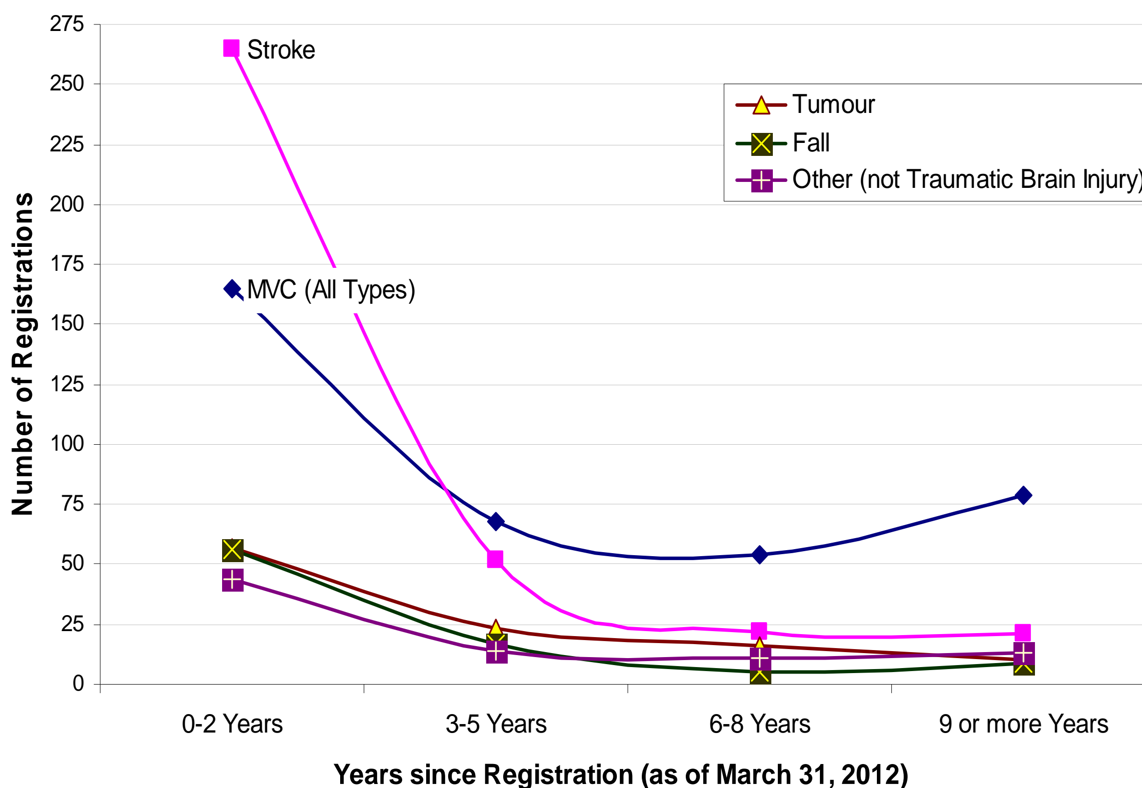
Note: This Table excludes the clients in sheltered workshop programming. Given the small number of clients (4) and the very intensive hours, the inclusion of these clients skewed the calculation of average service hours per registration.

It is important to note that different cause of injury categories have different length of service patterns. For example, more client registrations with "Stroke" recorded as the cause of injury are in earlier stages of program involvement versus the "years of service" patterns for other categories. In fact, 39% of "Stroke" registrations have had less than a year of service compared to 17% of "MVCs

(All Types)" registrations. Almost three-quarters (74%) of active clients whose cause of injury is a Stroke have had two (2) years of service or less. This is in comparison to less than half (45%) of all the clients recorded as being injured in some sort of Motor Vehicle Collision.

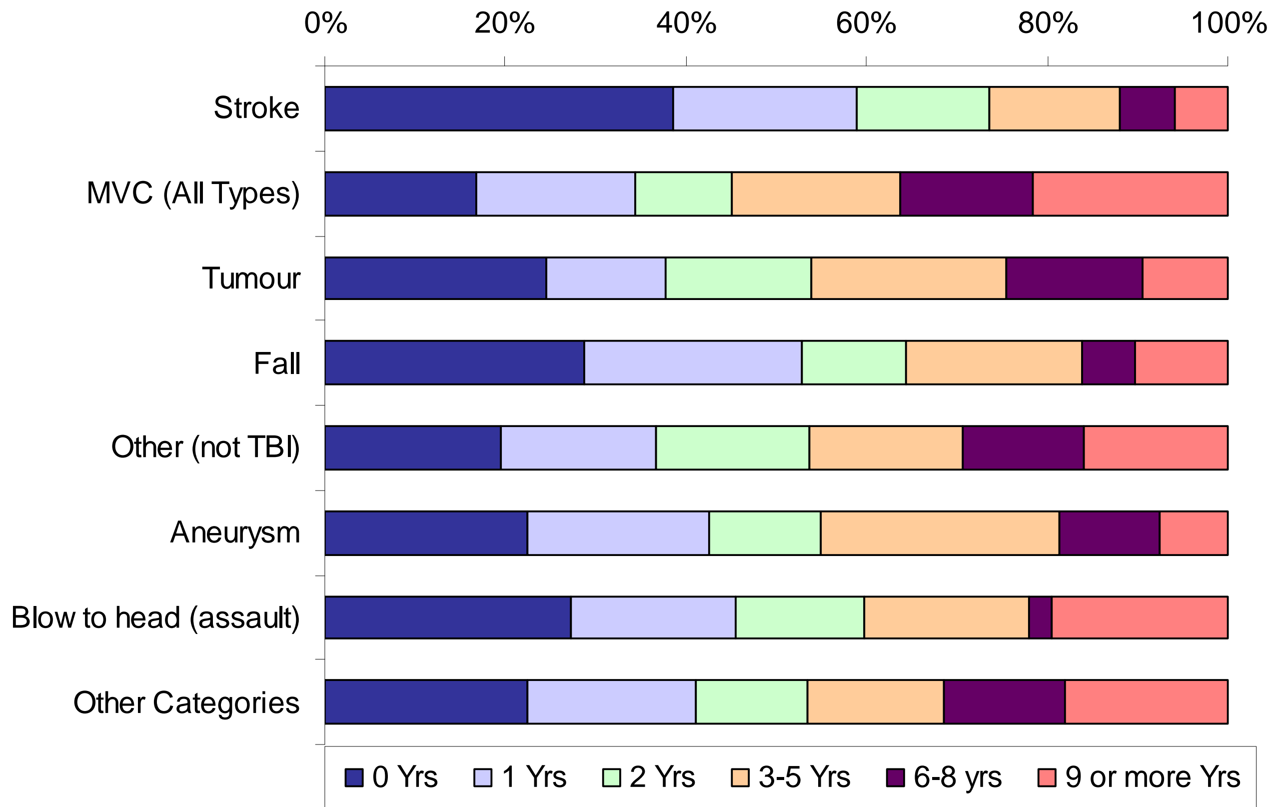
Figure 4 and Figure 5 break down the number of registrations based on the number of years since initial registration. Figure 4 shows the total number of registrations in each of the top five cause of injury categories. Stroke, for example, is the number one category in year one, but the number of registrations drops significantly for longer term clients. All types of MVC, in contrast, have the largest number of registrations over all other injury causes for years three and over since registration.

Figure 4: Number of Years since initial Registration for the Top Five Injury Categories



This next Figure shows the Years of Service breakdown within each of the injury categories. Like the previous Figure, this chart also shows that registrations for some categories, such as strokes, are very concentrated in the initial years of service, whereas the registrations for many other injury categories show longer-term service use.

Figure 5: Client Breakdown based on the Number of Years since Registration (Rounded Down to the nearest Year) for each Cause of Injury Category (as of March 31, 2012)



Service Utilization

Client Service Use

The continuum of services provided by the ABI Partnership is designed to address the needs identified by the original ABI Working Group, and supported by the research literature. Since January 2000, all service statistics of Partnership funded agencies are recorded in the Acquired Brain Injury Information System (ABIIS), whether these service events served clients, families, other service providers (e.g., consultations, training events), or community groups (e.g., education and prevention activities). The service type, recipient, and time are all recorded.

Client service types are divided into nine categories [6]. They are as follows:

- **Case Management** – This category includes assessment, re-assessment, care planning, client reviews, service coordination, and discipline-specific assessment. It also includes crisis management services.

- **Therapeutic Activities** – This category represents services that are provided directly to the client. These direct services are divided further into: behavioural interventions, cognitive interventions and training, educational (school) services, exercise and physical interventions, nursing interventions (including medication management), occupational therapy interventions, physical therapy interventions, psycho-social services (including counseling and client support), recreation and leisure activities, and speech language interventions.

- **Administration** – This category documents client-related administration, such as report preparation and funding applications.

- **Community Development** – This category includes networking with community resources, education in the school system, education to the community, advocacy, and organizing and preparing workshops and education/prevention events.

- **Consultation** – This includes providing information to other service providers, agencies or persons in regards to client care and providing specific professional expertise regarding a specific client.

- **Life Skills Training** – This service category includes training in instrumental activities of daily living (IADLs), homemaking, community living skills, social activities, communication skills, financial counseling, and life enrichment activities.

- **Residential Services** – This category includes providing assistance with independent living skills, search for accommodations, home management, respite care, and making housing accessible (financially and physically).

- **Client Specific Education** – This includes educating and training other providers to provide service to a particular client and sharing client information to make service provision possible.

- **Vocational Training** – All activities relating to vocational services, including job coaching, return-to-work programs, work trials, job development, supported employment and vocational counseling are recorded in this category.

The "client service events" recorded in ABIIS are primarily for the benefit of the survivor client, but the actual service event may have involved: the client individually or within a group of people, family members or couples, other service providers, or the community. For the 2010-11 fiscal year, a total of 49,524 "client service events" were recorded totaling 59,196 hours of service time. For the 2011-12 fiscal year, a total of 44,649 "client service events" were recorded totaling 54,438 hours of service time. In this report, a breakdown of the most recent fiscal year, 2011-12 will be presented as a "current snapshot" of the services being delivered by the ABI Partnership.

The breakdown of recipients of the "client service events" in 2011-12 are as follows: 71% of events were delivered to clients in an individual format, 19% were in a group format, 7% were contacts with other service providers, 3% of events were with family members, 1% were delivered to a couple, and 0.2% were delivered to a community. The bulk of the individual client service time recorded comes from the outreach teams (35 %), Life Enrichment Programs (19%), and Residential Programs (19%). Over 80% of the group delivered client services recorded come from Rehabilitation programs (35%), Residential Programs (28%), and by Day Programs (19%). The types of services delivered are broken down in Figures 6 and Table 5.

Figure 6: Service Hours recorded for Clients in the 2011-12 Fiscal Year by Type of Service

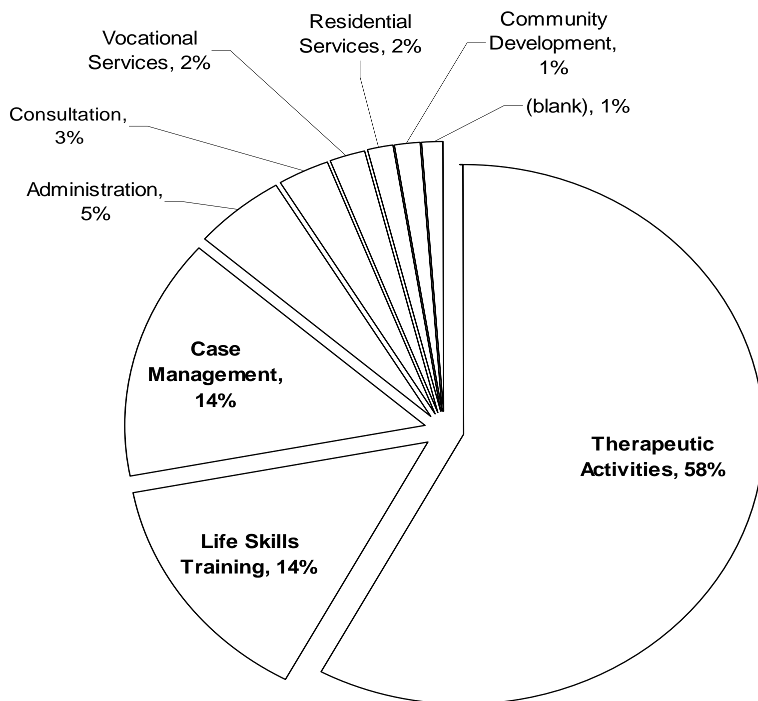


Table 5: Service Hours recorded under the "Therapeutic Activities" Category for Clients in the 2011-12 Fiscal Year by Type of Activity

Therapeutic Activities Category	% of Service Time
Recreation & Leisure Activities	54%
Psycho-Social Services	35%
Cognitive Interventions/Training	4%
Exercise	3%

* the other 5% of activities were recorded as (from most to least frequently recorded): Speech Language Interventions, Occupational Therapy Interventions, Nursing Interventions, including medication management, Educational Services, Physical Therapy Interventions, and Behavioural Interventions.

Service Coordination

Reporting on Partnerships

As the Partnership exists to augment and not duplicate existing health and human services, partnerships established by Partnership funded agencies are integral to successful service delivery to the ABI community. Agencies work with health and other human service partners both within the Partnership and in their local communities to meet immediate client goals and improve long-term program and client outcomes. Programs work in partnership to address immediate client goals such as psychosocial support, residential support, physical and cognitive rehabilitation, independent living skills development, vocational support, crisis intervention, life enrichment activities and recreational pursuits. They also provide education and training support and work to address systemic service gaps and plan for service improvements through agency networking and committee involvement.

Because partnering is such an integral part of our service delivery philosophy, we are continually polling staff to ascertain the nature and degree of these partnering activities. As one example of feedback on partnerships, a staff survey was conducted in August 2009 to gain front-line staff perspectives on a number of topics, including Partnerships. Forty-nine front-line staff completed this survey and responded that for almost two-thirds of their clients they partner in some form with services outside the Partnership and felt confident with the relationships established and the client benefit of these partnerships [6].

Annual Reporting on Partnering

As part of annual statistical reporting, funded agencies respond to the following narrative questions:

1. What activities has your program undertaken to form linkages in the community? What plans do you have to form new partnerships in the next fiscal year?
2. What barriers and/or challenges have been encountered and what has your program done in response?
3. Describe any time limited, special or developmental projects that your program is undertaking or has completed in this fiscal year. Information to include: topic, purpose, who is involved, and target completion date. What development projects/new initiatives do you have planned in the next fiscal year?

In addition to the regular intra-Partnership collaboration that occurs at the local level, the following listing, while not exhaustive, demonstrates the breadth of partnerships our funded agencies reported engaging in during this two-year reporting period:

Health region partnerships - outpatient therapies, mental health, addictions, home care, personal care homes, long-term care, social work, acute care discharge planners, public health, primary health, psychology, health promotion, physicians (generalist and specialist such as physiatrists and neurologists), acute care nursing, acute care rehabilitation services, dieticians, chronic disease management staff, medical records, driver evaluation program
Community emergency services – EMS/ambulance, police/RCMP, Fire
First Nations organizations - Friendship Centres, tribal councils, Health Canada/First Nations Inuit Health (federal health funding), First Nations housing authorities, First Nations Education, First Nations services within health regions
Education System - various school divisions and districts in the Kindergarten to Grade 12 system, and the Universities of Saskatchewan and Regina and SIAST for practicum students and volunteers (faculties include: Social Work, Education, Kinesiology and Health Studies, Therapeutic Recreation program)
Employment – employment networks, local services, employers (for client paid employment and volunteer opportunities)
Income Security – CPP Disability, Public Trustee, other third party/health insurers for disability benefits
Other human service Provincial Government Ministries – Corrections (including Probation), Justice, Social Services [including Income Security, Disability Issues, Cognitive Disability Strategy (for individualized funding), Community Living Division], Education, Advanced Education, Employment and Immigration [Can-Sask (including driver training, disability supports through EAPD)]
Other Disability-serving organizations - Saskatchewan Association of Community Living (SACL), Saskatchewan Institute on Community Living (SICL), Neil Squire Society
Food security organizations – food banks, Good Food Box program, etc.
Other – SGI catastrophic injury specialists, humane societies, Regional Intersectoral Committees, Heart & Stroke Foundation, YMCA/YWCA, municipal governments, legal aide/services, Hutterite colonies, Community Service Organizations (e.g., Kinsmen), SIAST dental hygienist program, WCB, housing authorities, Canadian Mental Health Association (CMHA), Immigrant Service Organizations (e.g., Open Door Society), Salvation Army

Over the 2010-11 and 2011-12 fiscal years, program partnerships and special activities occurred across our service continuum and are grouped under the following themes:

- **Referrals –** to and from various service agency partners
- **Community development** – activities to partner on service delivery and to address service gaps/challenges
- **Education** – In addition to the dedicated role played in prevention and education activities by the Education and Prevention Coordinators, the Saskatchewan Prevention Institute and Saskatchewan Brain Injury Association, other ABI Partnership staff are involved in knowledge transfer/exchange activities regarding brain injury through: staff consults, primary prevention of ABI through resource development and distribution such as newsletters, other print materials, event organization and delivery, public awareness activities and advertising in a variety of mediums (i.e., print, radio, television)

- Education Events - Family Safety Day, brain injury telehealths, Medical Scooter Rodeo and Safety Day, Health Fairs, Survivor "Lunch & Learn" series, child passenger safety training, distributing brain-injury related information at other community events
- Resource development and distribution – the resources distributed by funded agencies cover a wide range of topic areas and serve a variety of audiences. General topics referenced in this contract period include ATV safety to schools, bike safety/helmet use and medical scooter safety. Various brain injury-related topics (e.g., memory, fatigue, seizures, addictions and ABI, speech/language deficits, relationships, stress, money management, adaptive exercise, etc.) are addressed by gift or loan of pamphlets, journal articles, books and by providing information on websites/resources. Resources are also made available through the lending libraries of the three Outreach Teams and SBIA.

- **Joint activities**

- Practicum students – many agencies benefit from student practicum placements with their programs. Examples of academic disciplines of practicum students include, but are not limited to: Social Work, Education, Nursing, Kinesiology and Health Studies, Therapeutic Recreation

- Volunteer Opportunities – many agencies rely on volunteer placements for extra staffing support to deliver clients services and have been successful in recruiting volunteers through Seniors' organizations, university faculties and community colleges, as examples.

- Work opportunities – some agencies have been successful in hiring individuals through summer student grant programs

- Brain injury prevention/awareness initiatives – funded agencies engage in a wide variety of education activities with content delivered in the following areas: general brain injury education, Stroke Education, ATV safety, brain injury awareness activities such as Brain Walk (targeted at Kindergarten to Grade 6) and PARTY (targeted to high-school aged youth), bike rodeos/safety, and Scooter Safety

- Recreation/leisure activities – bowling; darts; exercise activities such as walking clubs, yoga, ABIility (a safe exercise and community recreational program), and In-Motion; arts & culture activities such as a musical theatre group, art classes, art gallery and museum visits, and crafts; and Children's and Adult Recreational/Educational and Wilderness Camps

- Community partners – a variety of community partners provide ABI programs' clients with no or low-cost access to community services; corporate sponsors provide tickets (theatre, sports) and funds to agencies. Examples of some Community Partners include: local libraries, Sports facilities, Legions

- Support Groups – support groups that are open to both survivors and their families are delivered in a variety of formats in various locations throughout the province (see detail in Support Group section of the report on pages 44-5)

- Evaluation Activities – staff were involved in primary data collection activities (survey completion, focus group attendance, key informant interviews, case file review) for the three external evaluations that were undertaken this contract period

- Interagency/Intra-Partnership Networking/Relationship-Building – these partnerships serve to address client access to ABI programs and work on service barriers. Many staff are involved in community development activities at the local or regional level to bring the voice of ABI to various issues that require system-level responses such as: disability support services, employment networks, disability benefits networks (such as the Disability Income Support Coalition (DISC) and the Cognitive Disability Strategy), housing (with local partners in both the public and private sector, including housing authorities), Regional Intersectoral Committees, South and Central Saskatchewan ABI Networking committees (which also involve community agencies outside the ABI Partnership providing the opportunity to enhance information-sharing/role clarification and referral linkages both inside and outside the Partnership)

- Public Relations/Public Awareness - many funded agency representatives are involved in awareness-raising activities to promote their specific service and to educate other service providers and the general public about acquired brain injury and the work of the ABI Partnership Project. Examples include:
    - In-services and presentations, including media interviews
    - Electronic and hardcopy newsletters
    - Posting information on their own and other agency websites
    - Submitting articles and promoting events in community and municipal newspapers
    - Disseminating information on brain injury and promotion of events on radio and television
    - Involvement in the production of brain injury documentaries on television
    - Brain Awareness Week (March) - holding events and/or manning displays during Brain Awareness Week each year
    - Brain Injury Awareness Month (June) - holding events, conducting public service announcements (PSAs), manning displays, distributing resources during Brain Injury Awareness month each year.

- Fundraising/additional grants – several of our non-profit agencies actively work to solicit additional funds to enhance their programming for the benefit of ABI survivors, their families and the province. Agencies engage in specific fundraising events such as fundraising dinners and walkathons, having membership drives, obtaining donations of money, equipment or free services (e.g., media, advertising), running a used clothing store, obtaining additional funding to support individual clients to attend their programs, receiving grants for: hiring summer student staff, to engage in facility renovations, providing additional programming hours (extra hours a day or days a week), or providing targeted programming to ABI clientele with specific characteristics (e.g., younger ABIs, those with higher cognitive function, ABI clients who are of Aboriginal ancestry or gender-specific) or special programming such as children's and adult wilderness camps.
    - Examples of other funding sources include: individual citizens, corporations, other government sources such as Community Initiatives Fund, CanSask, municipal government grant programs, Sask Lotteries, Cognitive Disability Strategy, federal grants

Service Barriers/Challenges:

While funded agencies have been very successful in building a solid network of services and supports to benefit the brain injury community in Saskatchewan, a number of service gaps persist that leave challenges in holistically addressing the full range of ABI clients' needs.

In the August 2009 staff survey, service barriers were assessed by looking at areas where staff identified the majority of clients' unmet needs fell. Responses were divided into North, Central and South service provider responses. All three service areas identified housing as the number one area of greatest unmet client need. This was followed in the Northern Service Area by lack of therapy, and transportation challenges. In the Central Service Area the second most frequently identified unmet need was access to community support workers, followed in the number three spot by access to mental health services. In the Southern Service Area, the number two unmet need was more avocational opportunities for young adults and the need for a Young Adult Day Program [6].

Below are the narrative responses to the question, ***What barriers and/or challenges have been encountered and what has your program done in response?*** The bracketed numbers below denote the number of programs that indicated a service barrier/challenge related to the following themes:

- **lack of housing options for/supports to:** (8) - this includes poor condition, inadequate supply, lack of affordable stock, inappropriate options (due to younger age of clients, level of supervision/security available, and lack of companion programming by available options)
- **transportation/access to services for rural/remote clients:** (8) - access to (because of lack of supply or distance to services) as well as affordability of
- **limited human resources in program to meet client need:** (6)
- **lack of service awareness/lack of client referrals:** (6)
- **recruitment and retention of staff/volunteers:** (5)
- **limited access to specialized medical services:** (4) - including general practitioners (GPs), pharmacists and other specialized medical services such as outpatient therapies (physical/occupational/speech language) and neuropsychological support
- **income security:** (3) - as related to access to needed services and ability to meet basic living needs (food/shelter)
- **lack of vocational opportunities:** (2)
- **working with clients with concurrent (mental health and addictions issues):** (2)
- **client employment readiness/engagement:** (2) **–** as it affects meeting client expectations and client job placement success
- **lack of day programming:** (1)
- **lack of respite care:** (1)
- **better linkages necessary with First Nations communities:** (1)

Agency responses/solutions to service barriers/challenges -

Community development and networking activities – as indicated in the Partnering activities section above, many agency representatives remain involved on a number of committees to address the service barriers/challenges identified. They advocate for their clients' access to services and work with their community partners to find creative solutions to address service gaps. Examples of issues they continually work to address include: brain injury program awareness, housing deficits, client employment opportunities, and income security and disability benefit issues.

Intra-Partnership Agency Collaboration – there are intra-Partnership agency collaborations that frequently occur to deliver programming such as the SBIA Annual Survivor and Family Camp, other ABI children's and adult camps, educational events such as PARTY, Brain Walk, brain injury educational presentations, Brain Awareness Week events, and other group recreational activities such as survivor/family celebrations.

Fundraising and staff retention initiatives – as also indicated in the Partnering section above, because the grant resources received from the ABI Partnership are finite and cannot address the full range of needs of ABI survivors, many of our funded agencies have been very diligent in soliciting additional financial and other in-kind resources and program supports to address these unmet client needs. In addition, several of our funded non-profit agencies indicated how they actively work to build an attractive organizational environment by working on enhancing employment benefits and providing professional development opportunities in hopes to retain their employees and to keep them engaged.

The section below illustrates the way these partnerships are captured through the referral patterns reported in the ABIIS.

Referrals recorded in ABIIS

A core function of the ABI Outreach Teams and Regional Coordinators is to provide case coordination. Individual ABI programs within the ABI Partnership Project also make referrals to other programs.

Client Referrals to other programs

In 2011-12, the Partnership made a total of 3,631 referrals to a wide variety of services. This variety illustrates the extent of partnering that the Partnership has achieved. The majority of Outreach Team referrals were to addictions and mental health (22%), and the majority of funded program referrals were to sheltered workshops and training (31%). A number of referrals were also made to programs within the ABI Partnership Project. All referrals recorded in ABIIS for the 2011-12 Year are shown in Appendix 3 broken down by Program Type and Referral Source. Table 22 indicates that referral patterns differ greatly between programs.

Referrals from other programs for client access to Partnership services

In 2011-12, there were 1,338 Registrations that had a referral source recorded. A breakdown of the referrals shows that across Partnership Programs, the most frequently reported referral categories are the ABI Outreach Teams (25%), Rehabilitation Services (16%), Other Health Care Professionals (14%), Acute Care Services (13%), Family (6%), and Client Self-Referrals (6%). There were 45 other referral sources indicated; however, none of these categories made up more than 2% of total referrals. This shows the wide variety of partnerships that are held by ABI Partnership Programs. Referral Sources do vary by Program Type. Table 6 shows the top referral sources for the different Program Types.

Table 6: Client Registrations from 2011-12 by Program Type and by Referral Source (only sources accounting for 5% or more of registrations are shown)

Program Type	From Referral Source	Referrals	% of Referrals
Children's Program		**17**	
	ABI Outreach Team	11	65%
	Other Health Care Professionals	3	18%
	Education System	2	12%
	Mental Health Services	1	6%
Crisis Programs		**38**	
	ABI Outreach Team	15	39%
	Mental Health Services	4	11%
	Community Services	3	8%
	Other Health Care Professionals	3	8%
	Crisis Intervention Services - Saskatoon	2	5%
	Long Term Care/Special Care Homes	2	5%
	Mobile Crisis Services - Regina	2	5%
Day Programs		**23**	
	ABI Outreach Team	9	39%
	Family	4	17%
	Community Services	3	13%
	Community Centre	2	9%
	Community Health	2	9%
	Long Term Care/Special Care Homes	2	9%
Independent Living Programs		**33**	
	ABI Regional Coordinator	16	48%
	ABI Outreach Team	6	18%
	Other Health Care Professionals	4	12%
	Rehabilitation Services	3	9%
	Family	2	6%
Life Enrichment Programs		**73**	
	ABI Outreach Team	22	30%
	ABI Regional Coordinator	11	15%
	Long Term Care/Special Care Homes	9	12%
	Phoenix Residential Society ABI Program	6	8%
	SAC Regina Supported Employment Program	4	5%
Outreach Teams		**609**	
	Acute Care Services	185	30%
	Rehabilitation Services	182	30%
	Other Health Care Professionals	90	15%
	Client Self-referrals	33	5%
	Family	29	5%

Program Type	From Referral Source	Referrals	% of Referrals
Regional Coordinators		**220**	
	ABI Outreach Team	67	30%
	Rehabilitation Services	37	17%
	Other Health Care Professionals	35	16%
	Client Self-referrals	17	8%
	Family	16	7%
Rehabilitation Programs		**117**	
	Other Health Care Professionals	48	41%
	ABI Outreach Team	24	21%
	Family	20	17%
	Long Term Care/Special Care Homes	6	5%
Residential Programs		**84**	
	Other Health Care Professionals	14	17%
	ABI Outreach Team	23	27%
	Family	9	11%
	Client Self-referrals	8	10%
	Home Care	6	7%
	Mental Health Services	5	6%
	Rehabilitation Services	4	5%
Vocational Programs		**124**	
	ABI Outreach Team	47	38%
	Client Self-referrals	24	19%
	Family	10	8%
	Social Services	6	5%
Grand Total		**1,338**	

Consultations recorded in ABIIS

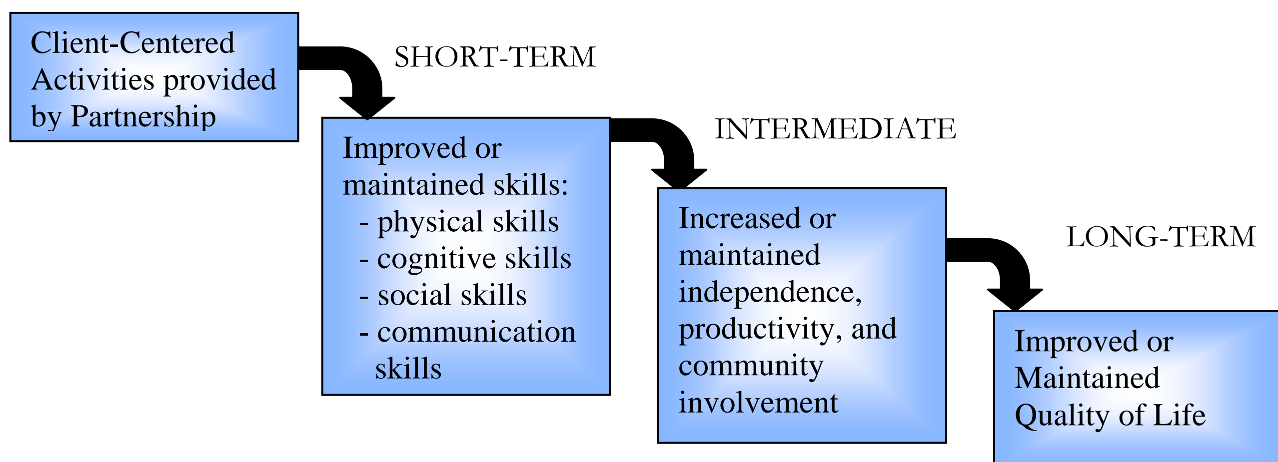
Case coordination can also be seen through the "consultation service events" recorded in the ABIIS. In the 2011-12 fiscal year, there were a total of 1,282 consultations recorded in ABIIS for a total of 940.5 hours of service. Fifty-seven percent of events occurred by phone, 32% in-person, 3% by email, 1% by letter, and 6% through other means. Regarding the topic of the consultations, half (50%) were regarding a specific individual, 22% were on brain injury information, and 15% on services. The other 15% of consultations were regarding (in order of frequency) family support, information gathering, the ABI Partnership Project, Education and Prevention, and Support Groups. The breakdown of consultations by the type of program that recorded the consultation event is shown in Table 7.

Table 7: Consultations in the 2011-12 Fiscal Year by Type of Program that Recorded the Consultation

Type of Program	# of Consultations	% Events
Outreach Teams	722	56%
Regional Coordinators	211	16%
Education and Prevention	151	12%
Rehabilitation Programs	70	5%
Children's Program	44	3%
Residential Programs	29	2%
Vocational Programs	27	2%
Day Programs	19	1%
Life Enrichment Programs	7	1%
Independent Living Programs	2	0%
Grand Total	**1,282 Events**	**940.5 Hours**

Client Outcomes

A major objective put forth by the ABI Working Group was that "after program implementation, both rehabilitation outcomes and quality of life will be improved for people with acquired brain injury and their families" [1]. As such, evaluations of the partnership continue to measure these important outcomes. Rehabilitation outcomes can be separated into short, intermediate and long-term outcomes.



Skill improvement has been measured using the Mayo-Portland Adaptability Inventory – 4th edition (MPAI-4), which assesses improvement in abilities (e.g., sensory, motor, and cognitive abilities), adjustment (e.g., controlling anger, fatigue), and participation (e.g., engagement with recreation and leisure activities). Goal Attainment was also assessed because of the unique nature of each brain injury, and the tool's ability to capture improvement over a wide variety of client needs and goals.

Goal Attainment

ABI clients have a number of service needs which include, but are not limited to: vocational assistance, increasing social and recreation opportunities, improving cognition and improving psychological well-being. As brain injuries are unique and result in unique sets of deficits and needs, client work done in the ABI Partnership is, by necessity, client-centered. Goal setting, which involves the client, family and staff member, is fundamental to directing the services provided. At the individual client level, goals are the foundation to identifying and working toward potential outcomes [8].

Each of the funded programs creates opportunities to bring together the client, family and staff member(s) in order to develop goals. Goal setting information is paramount in providing ongoing direction in client's rehabilitation planning and evaluating services rendered and outcomes obtained.

Arising out of the 1999-2003 evaluation was a recommendation to develop a standard tracking tool that could be used to measure goal attainment. As a result of this recommendation, programs began tracking goal attainment after April 1st of 2004, and have been submitting annual goal attainment summaries since 2005 using the Goal Attainment Template (see Appendix 4). The first evaluation of this measure showed that 91% of submitted goals were partially to fully achieved (62% achieved, 29% partially achieved). The 2007-10 evaluation indicated that 90% of submitted goals were partially to fully achieved (62% achieved, 28% partially achieved)[1]. Thus, past evaluations have shown that the vast majority of goals that ABI Partnership staff work with clients to achieve are partially to fully achieved.

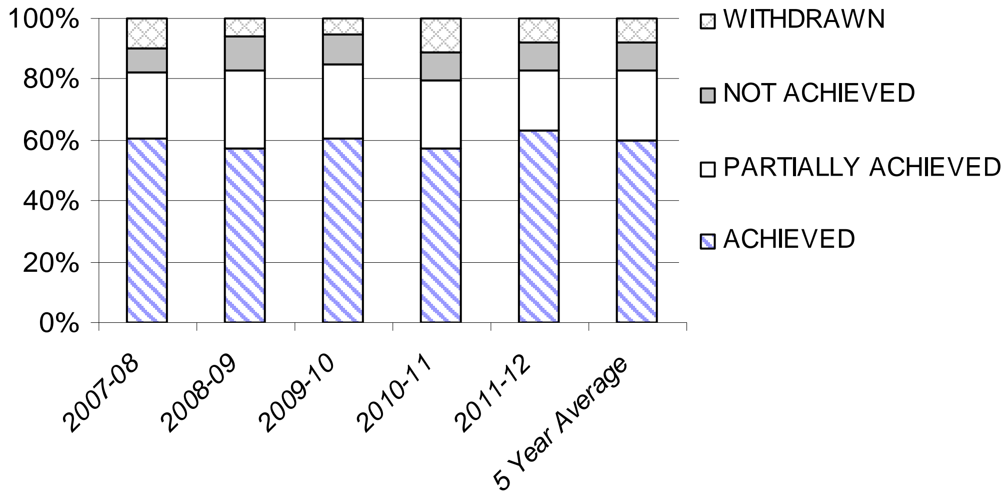
ABI Goal attainment areas are as follows: Cognitive, Functional Independence, Psycho-social/Emotional, Community Activities, and Other; and these goal areas are further subdivided into 35 sub-areas (see Goal Attainment Template in Appendix 4). The goal attainment information is submitted to the Ministry of Health by the programs in aggregate form and provides a summary of client goal work since registration.

Discharged & Inactivated Clients

At the end of every fiscal year funded agencies submit goal summaries to the ABI Provincial Office for the clients that they discharged or inactivated from service that year. These goal summaries are reported by goal area and by level of goal achievement. In 2011-12, goal attainment information reflected the goals of 404 clients and 1,731 recorded goals (average of 4 goals per client). The breakdown for the 2011-12 fiscal year showed that 63% of the goals were recorded as achieved, 20% as partially achieved, 9% as not achieved, and 8% as withdrawn. When withdrawn goals are not included, the goals submitted in 2011-12 showed 89% as partially to fully achieved (67% achieved, 22% partially achieved). As seen in Figure 7, the same general pattern of goal achievement has been seen for the last five fiscal years.

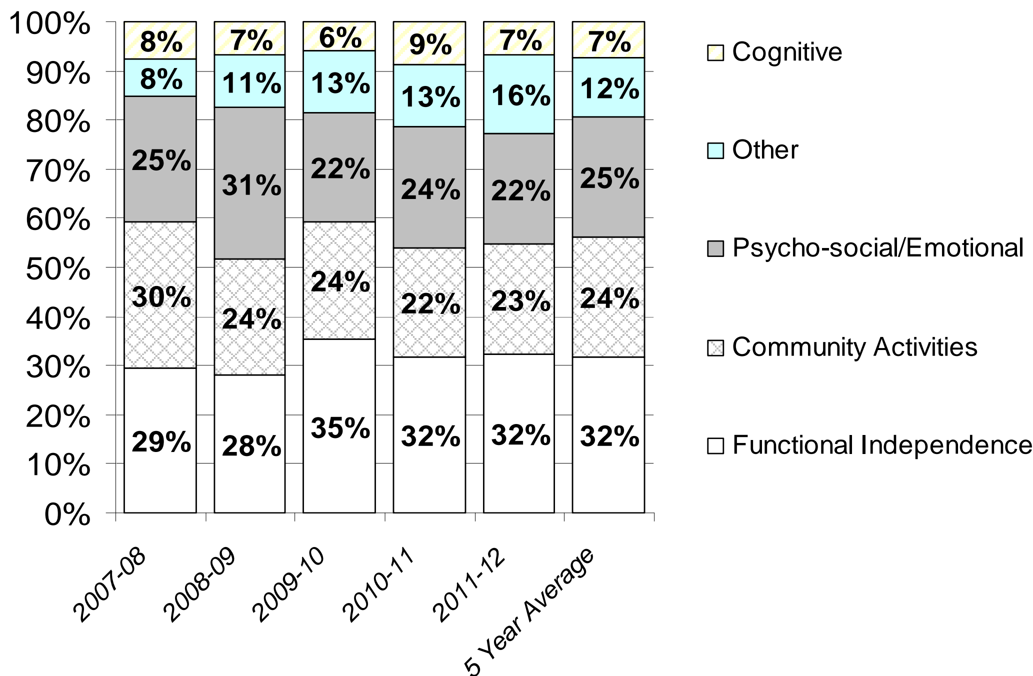
[1] The total number of goals does not include the goals that were withdrawn.

Figure 7: Overall Goal Attainment for Discharged Clients over the last Five Fiscal Years



The breakdown of goals into goal areas has also remained relatively consistent over the last five fiscal years (see Figure 8).

Figure 8: Discharged Clients Goals by Goal Area, 2007-12



The top three goal areas have always been "Functional Independence", "Community Activities", and "Psycho-social/Emotional", although not always in that order. The percentage breakdown between these three goal areas has always been fairly close.

A more thorough analysis of goal attainment for the 2011-12 fiscal year is shown in Table 8. This breakdown does not include withdrawn goals, as they do not factor into goal achievement levels. As can be seen in this Table, the greatest full achievement of goals is seen in the area of "Other", and

the least goal achievement is seen in “Community Activities” (20% not achieved) and “Psycho-social/Emotional” (14% not achieved).

Table 8: Goals submitted for Clients Discharged in the 2011-12 Fiscal Year by Achievement Level and Goal Area

% Achievement on non-withdrawn Goals	Cognitive	Functional Independence	Psycho-social /Emotional	Community Activities	Other
Achieved	50%	72%	56%	65%	83%
Partially Achieved	46%	21%	30%	15%	11%
Not Achieved	4%	7%	14%	20%	5%

* 10% of the total goals were recorded as being withdrawn: 9% of "Cognitive" goals, 10% of "Functional Independence" goals, 9% of "Psycho-social/Emotional" goals, 15% of "Community Activity" goals, and 6% of "Other" goals.

Of the total goals submitted for discharged clients in 2011-12, the goals break down pretty evenly between the 35 goal sub-areas from 7% of total goals for “Leisure Activities” and “Employment”, to less than 1% for “Other” and “Other Community”. The eleven most frequently recorded goal sub-areas are listed below. Each of these sub-goals account for 4 - 7% of total goals submitted, and is listed by most to least frequently reported.

- Leisure Activities
- Employment
- Physical
- Other Functional
- Relationships with others
- Memory
- Understanding ABI
- Navigating the Medical System

In general, the goal achievement for discharged clients is very high. The client goal attainment breakdown from 2011-12 shows that for one-third of the sub-goal areas (12 sub-goals), full achievement was attained on three-quarters of all goals submitted:

- Other Community (100%)
- Anger Management (91%)
- Navigating the Medical System (90%)
- Other Psycho-social (86%)
- Attention (83%)
- Physical (81%)
- Understanding ABI (81%)
- Eating Skills (80%)
- Housing (78%)
- Time/Fatigue Management (78%)
- Navigating the Financial System (77%)
- Transportation (76%)

When all goals with at least partial achievement are counted, 95% and 100% partial to full achievement was indicated for 15 sub-goal areas (listed from most to least achievement):

- Other Community
- Other Psycho-social
- Eating Skills
- Navigating the Medical System
- Time/Fatigue Management
- Nutrition/Meal Preparation
- Navigating the Financial System
- Attention
- Dressing/Grooming/Hygiene
- Memory
- Understanding ABI
- Stress Management
- Housing
- Advocacy
- Physical

There were 8 sub-goal areas where over 15% of goals were recorded as "not achieved". These goals are listed in Table 9. These numbers reflect the difficulty of achieving success in these areas. Further analysis may be required to understand the barriers to achieving success in these areas.

Table 9: Sub-Goal Areas with the Highest Levels of Non-Achievement Submitted for Clients Discharged in 2011-12

Goal Sub-Area	Not Achieved	Sub-Goal Ranking % of Total Goals
Other	75%	0%
Sexuality	36%	1%
Crisis Intervention/Secondary Prevention	27%	2%
Volunteering	25%	2%
Spirituality	25%	1%
Recovery Activities	23%	2%
Education	20%	4%
Mood Management	18%	4%

Goal Attainment and prevalence data for each goal sub-area is displayed in Appendix 5.

Active Clients

Once every contract period, Partnership Programs are also asked to submit aggregate goal attainment information to the Ministry of Health for clients that are still active on their caseloads. During this contract period, Partnership programs submitted aggregate goal attainment information for the 2011-12 fiscal year.

As can be seen in Figure 9, the greatest full achievement of goals is seen in the area of community activities, and the least goal achievement is seen in the Psycho-social/Emotional area, and the

Cognitive area. However, when partial achievement is taken into account, the areas seeing the least overall amount of achievement are Community Activities and Functional Independence, respectively.

Figure 9: Goal Attainment for Discharged Clients in 2011-12 by Goal Area

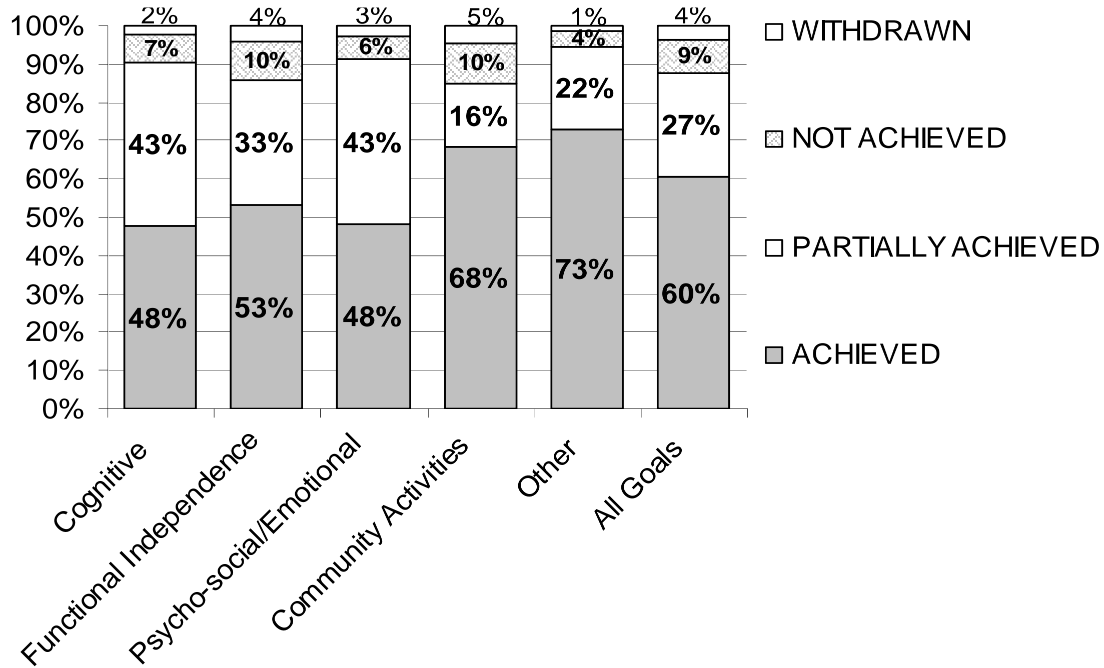


Table 10 shows the fifteen sub-goals with the highest number of recorded goals. In general, each of these top ten goals shows very high achievement levels. This is especially good given that the clients reflected in this analysis are still active, and thus, still working towards many of their goals.

Table 10: The Fifteen Most Frequently Reported Sub-Goals in Descending Order, with Achievement Levels listed in the second column

Top 15 Sub-Goals	Partial to Full Achievement*
1. Leisure Activities	92%
2. Employment	87%
3. Physical	96%
4. Relationships with others	95%
5. Community Involvement/groups	92%
6. Transportation	78%
7. Understanding ABI	95%
8. Education	84%
9. Housing	88%
10. Memory	91%
11. Home Management	93%
12. Navigating the Medical System	96%
13. Handling Money	87%
14. Time/Fatigue Management	94%
15. Mood Management	97%

* Achievement level includes Full Achievement AND Partial Achievement. This analysis does not include withdrawn goals.

The goal attainment breakdown shows that the eight sub-goals gaining the most "full achievement" (in order of achievement level) range from 84% to 71%:

- Advocacy
- Navigating the Financial System
- Crisis Intervention/Secondary Prevention
- Employment
- Eating Skills
- Navigating the Medical System
- Leisure Activities
- Understanding ABI

When all goals with at least partial achievement are counted, 95% and 100% partial to full achievement was indicated for 12 sub-goal areas (listed in order of achievement level):

- Eating Skills
- Stress Management
- Crisis Intervention/Secondary Prevention
- Advocacy
- Navigating the Financial System
- Mood Management
- Anger Management
- Physical

- Navigating the Medical System
- Relationships with others
- Understanding ABI
- Attention

The five sub-goals that had the least goal attainment were as follows (number and percentage of total goals is indicated in brackets):

- Other Community - did not fit into other Community sub-areas (19 goals; 47% not achieved)
- Transportation (194 goals; 22% not achieved)
- Education (155 goals; 16% not achieved)
- Other Functional (108 goals; 15% not achieved)
- Volunteering (68 goals; 15% not achieved)

These numbers reflect the difficulty of achieving success in these areas. Further analysis may be required to delve into the nature of barriers to achievement in these areas.

Mayo-Portland Adaptability Inventory – Version Four (MPAI-4)

A number of outcome measures were utilized in the initial evaluation reports generated by the ABI Partnership. After the 2004-06 evaluation, it was decided by the Outcomes Working Group to reduce the Outcomes Questionnaire Package to one comprehensive measure with good reliability and validity. In addition, having only one measure has made the evaluation process less cumbersome for program staff and clients. This measure is the Mayo-Portland Adaptability Inventory – 4th edition (MPAI-4) shown in Appendix 6.

The MPAI-4 is a measure of long-term (post-acute) outcome following an ABI [9]. It provides an indication of challenges in terms of impairments, activity, and participation of the client [10]. In the 2004-06 evaluation, the MPAI-4 was administered at intake and either at clients' one-year anniversary in the program or at their inactivation date. However, the protocol was changed in 2007 so that the second administration took place at clients' 18-month anniversary in the program (or inactivation date). It was hoped that this longer timeframe might detect statistically significant improvements. And indeed, significant improvements were seen in the 2007-10 Program Review, even though only a small number of intake and anniversary MPAI-4 packages were available for the analysis at that time.

A total of 171 complete (intake and anniversary) packages have been returned since 2007 for the current analysis. All 171 packages included staff rated inventories, 121 packages included survivor rated inventories, and 76 packages included significant other rated inventories. The demographic information that follows is based on all 173 outcome packages. The average time between intake and anniversary measurement was 453 days, and the age at time of injury ranged from less than a year to 95 years old (Average= 43 years; Standard Deviation of 18.8 years). The gender of respondents was identified as primarily male (64%). The most common cause of ABI was a result of a Stroke (33%) followed by motor vehicle collisions (21%). Forty-nine percent of respondents had no insurance, 22% were insured with SGI, 19% had other insurance, and 5% were covered under Workers Compensation. Most of the respondents either had a Home Health Region of Saskatoon (30%), or

Regina Qu'Appelle (30%). Forty-seven percent of clients lived in their own or family home independently, and 26% lived at home with assistance (combining the two categories "less than 8 hours/day" and "greater than 8 hours/day") or supervision (requires supervision virtually all the time).

The MPAI-4 consists of three subscales: **Ability** (i.e., sensory, motor, and cognitive abilities); **Adjustment** (i.e., mood, interpersonal interactions); and **Participation** (i.e., social contacts, initiation, money management). A paired sample t-test was conducted on the available data to detect any statistically significant reductions in difficulties arising from an ABI.

Significant improvements were noted on all subscales and the total scores for all three rater groups: staff, significant others, and survivors. Results of these t-tests are shown in Table 25 in Appendix 7.

Improvement for each item of the MPAI-4 was examined using t-tests (see Table 26 in Appendix 7). For staff rated inventories, these analyses show significant improvement on every item of the inventory with the exception of item 4 - "Audition: Problems hearing; ringing in the ears" and item 19 - "Inappropriate social interaction: Acting childish, silly, rude, behavior not fitting for time and place". For the inventories rated by significant others, nineteen of the 31 items showed significant improvement. And for the inventories rated by survivors, less than half of the items showed significant improvement. Thus, the results of the MPAI-4 analyses show that of those people whom MPAI-4 inventory results were submitted, on average, clients improve their functioning in many areas of their lives.

Given the number of inventories now available for analysis (171 versus only 28 available in the last Program Review Report in 2010), further analyses should be done to see whether there are types of service that work better for certain types of clients. For example, do the improvements seen on this inventory differ based on time since injury, cause of injury, types of service received, or a combination of factors.

In the 2004-06 evaluation report, there were no significant improvements detected; although there was a decrease in the average scores for the Physical/Medical and the Daily Activities subscales.[2] After this program evaluation was completed, programs were asked to re-administer the MPAI-4 after 18 months, as opposed to the previous protocol of one year. As significant improvements are now being found on the MPAI-4, this supports the need for providing long-term support to clients as it would appear that clients continue to improve past one year. That is, significant improvement was noted for the one-and-a-half year pre-post measurement, but not for the one year pre-post measurement used in the 2004-06 report.

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[2] The version of the Mayo Portland Adaptability Inventory used in the present evaluation is newer than the version used in the previous evaluation report. The previous version was composed of six subscales, whereas the present version has collapsed these subscales down to three: Ability, Adjustment, and Participation.

Support Groups

Group sharing provides a therapeutic outlet for ABI survivors and their families. This therapeutic benefit is seen in group member identification, increased self-esteem, enhanced coping skills and stress reduction, and in survivors' reduced perception of stigma surrounding their disability [11,12,13]. Because of this, the ABI Partnership currently promotes and/or delivers a variety of support groups throughout the province that benefit both survivors and their families/caregivers. Support groups are offered in a variety of formats – some are professionally-facilitated by front-line Partnership staff members (most often one of the Regional Coordinators or Outreach Team members) while others are peer-run by survivors and/or family members. The content of these group sessions is also a combination of education/discussion and general socialization/peer support.

While many support groups have open membership to both survivors and their families, the majority are attended most regularly by survivors and serve to provide a time of respite for families. Some support groups have struck up between a small number of survivors with similar characteristics and needs and these have a static membership.

Family-only support groups are offered in both Saskatoon and Lloydminster. In Saskatoon, the Caregiver Support Group is offered by the Saskatoon Health Region. It is intended as education and social networking and is delivered in 6-week sessions. It runs a minimum of twice per year to a maximum of four times per year. In Lloydminster, the Lloydminster & Area Brain Injury Society (LABIS) also offers a family support group on an ad hoc basis as needed/requested. Future plans are underway to trial caregiver-only support groups in Moose Jaw and Assiniboia in fall 2012.

Support Groups serve to address a number of needs of ABI survivors. Often there is an educational component to the support groups that are professionally-facilitated, with an opportunity for Question and Answer after the educational component, as well as general dialogue/roundTable discussion. Educational activities focus on topics of interest of the group membership. For example, the Sunrise ABI Regional Coordinator has recently started a 6-session 'Lunch and Learn' for ABI survivors in Yorkton with content based on the *Survival Series Educational Toolkit* from Glenrose Rehab in Alberta. Sometimes these groups provide the opportunity for more informal information-exchange. In addition to the educational purpose that support groups fulfill, they largely serve to provide psychosocial therapeutic benefit. They offer their members a time of fellowship/companionship, shared understanding/compassion, as well as a safe venue to learn and practice social skills [14]. Friendship networks are often established through group involvement and these friendships extend beyond the support group setting to impact the survivor attendees' lives outside of the support group.

Some Support Groups focus on the needs of specific survivor groups such as stroke survivors. ***Living with Stroke*** groups are typically offered by health region staff or other community-based organizations outside the ABI Partnership Project. Active groups identified by Partnership staff are in Lloydminster, Meadow Lake, North Battleford and Saskatoon.

Support Group locations
Support groups are currently active in the following locations: Meadow Lake, Lloydminster, North Battleford, Prince Albert, Tisdale, Saskatoon, Yorkton, Regina, Moose Jaw, Swift Current, Weyburn, Estevan, Redvers

See the ABI Partnership website for a listing of Support Groups.
http://www.abipartnership.sk.ca/html/abi-survivors-and-families/Local_Support_Groups/index.cfm.

Support Group Activities recorded in ABIIS

Support group activities are considered "Community Service Events", and thus, are recorded in the "Community Events" section of ABIIS. During the 2011-12 fiscal year, there were two types of support groups recorded: "support group" and "family support" (See Table 11).

Table 11: Support Group Activities recorded in the 2011-12 Fiscal Year

Type of Service	# of Events	# of Attendees	Total Time (Hours)
Family Support	12	219	34
Support Group	617	4,117	2,082
Grand Total	**629**	**4,336**	**2,116**

Family Services

The impact of brain injury on the family of the survivor is substantial, as over the long-term the majority of caregiving responsibilities for persons with ABI fall predominantly to informal caregivers such as spouses and parents [15]. Based on this important role and great need, families were included in the Partnership's mandate: "*Saskatchewan will have a comprehensive, integrated system of supports, resources and services that will enhance the rehabilitation outcomes and improve the quality of life for individuals with acquired brain injury <u>and their families</u>*" [1, p.5].

Previous Evaluations

Family needs were formally evaluated in the 2004-2006 evaluation. Findings from that evaluation confirmed what the medical and rehabilitation literature has long stated, that family members face one of their most difficult tasks in coping with the aftermath of brain injury [16]. The 2004-06 evaluation findings determined that addressing family needs remains an important service activity of the Partnership and recommendations regarding ways to better address family needs were included in that evaluation. Many of these follow-up recommendations were left to the front-line service providers who work with families to address and the ABI Provincial Office has played a more consultative and monitoring role around this program improvement area.

Reporting on Family Support Activities

In an effort to monitor work with families in the last contract period, ABI Partnership staff were asked to submit information in the 2007-08 fiscal year to determine the way in which they work with families. In order to update this information for future years' planning, some Partnership service

providers' work with family was informally reassessed in spring 2012 by polling the Outreach Teams and Regional Coordinators to determine if the previous information that their programs submitted was still accurate. This polling exercise confirmed that the activities relayed in the 2007-08 fiscal year were largely still accurate or that they continue to work with families in the same general ways. The picture of family services that follows comes from this polling, our information system (ABIIS) and other qualitative sources.

Family needs are addressed in a variety of ways by the ABI Partnership. In addition to the direct funding provided to the Saskatchewan Brain Injury Association to deliver three separate annual events to provide education and support to both families and survivors, our funded agencies also work with families in their day-to-day delivery of services by involving families in client (i.e., survivor) case conferencing and providing direct support and/or referrals for additional services based on individual family members' needs.

How programs work with families

When funded agencies were asked how their programs work with families they indicated that families are often the first point of contact with them and are involved in intake interviews and information-gathering. Depending on the severity of the survivor's injury, family may be the main point of contact for ABI program staff.

Family members are usually an integral part of the survivor's care team and are involved with the survivor (where requested/appropriate), in regular case conferences regarding the survivor's care plans.

ABI program staff informally assess the needs of family members and families are provided with ABI contact information for follow-up with ABI staff as needs arise.

Individualized services are provided to families, on a case-by-case basis, which can include in-person or phone consult and invitation/involvement in support group activities. When survivors do not want/require service from ABI, but family members do, they are sometimes the primary client. Also, family may be seen independent of survivors to gain additional insight and information about family dynamics and needs.

Family needs addressed by ABI programs

A critical need for family and caregivers after a loved one sustains a brain injury is to receive general education and psychsocial support. As a family member will most often take on a caregiver role to ABI survivors post-injury, knowing what to expect in terms of dealing with the varied sequelae that manifests with brain injuries and what supports their loved one will need is very necessary and useful information.

Resources targeted to family members have been developed by Partnership funded agencies which are distributed direct to family/caregivers (e.g., the Saskatchewan Brain Injury Association (SBIA) *ABI Toolkit* that is most often provided to families while ABI survivors are still in the acute care setting, as well as the Saskatoon Health Region's *ABI Survival Guide*). These resources help families

to understand the changes that result from brain injury and to address issues in the course of ABI recovery.

ABI staff provide valuable information and support to help families cope and deal with survivors' changes in behaviour, navigating the health and other human service systems (to address their loved one's needs and their own), coping with their own stress and depression, as well as dealing with role changes and relationship issues. These relationship issues often include dealing with sexuality and spousal roles when the survivor is a spouse and parenting information when the survivor is a child. Families are often referred for additional services such as mental health counselling, addictions services, and to obtain resources for parenting a child with a disability. Respite support is often also arranged for families needing a break from their caregiving role. Some service providers will also work with other community-based services to develop 'safe plans' if there are concerns, because of behaviour/aggression that can sometimes manifest for survivors post-injury, that the family may be living at risk.

All areas that are looked at in survivor goal-setting can also be used with families.

Activities that ABI programs involve family members in

Dependent on family needs at any given time, families are invited to be involved in the regular activities offered to survivors such as support groups and other social and recreational events such as information sessions, BBQs, seasonal dinners, coffee groups, and community outings. The provision of educational support is ongoing and is provided in formats such as newsletters and information tips to family members and survivors. Staff are available for family consults and crisis management as needed.

While the majority of ABI Support Group meetings are open to family members to attend, in the past, family-specific (spousal) support groups have also been offered in Saskatoon. This service was based on a group of family members' needs at the time it was established. As these needs were addressed over a series of sessions, group membership and session attendance declined and the group is inactive at this time. This type of group offering would be revisited in the future, if assessed as necessary, when new family members enter service.

Annual family panels are organized by the South and North Outreach Teams. These panel sessions provide the opportunity for family members throughout the teams' respective service areas to make new contacts, to share their stories with each other and to gain new information, connections and support.

SBIA hosts a number of events each year that involve family members. Family members' needs are addressed through the agency's twice annual retreats/conferences and their Spring Camp at Arlington Beach. These events are regularly attended by a number of family members and play an important role in providing regular family support and education. SBIA is a membership-based non-profit agency and family members are often involved in volunteer activity through Board and event involvement and through these avenues have input into programming decisions of the organization.

Family Services as Recorded in the Information System (ABIIS)

There are a numbers of areas in the Acquired Brain Injury Information System (ABIIS) where work with families can be recorded. Where the information gets recorded depends on the situational circumstances.

Activities that are *primarily* regarding the care of a survivor who is a registered client are recorded with all of the other client service statistics in the "client service events" section of ABIIS. In this section for the 2011-12 fiscal year, there were 1,178 service events totaling 1,028 hours of service time where 'family' is listed as the service recipient. The type of activity recorded for these events is as follows:

- 55% - Case management
- 25% - Blank "Type of Activity" field in ABIIS
- 7% - Therapeutic activities
- 6% - Administration
- 6% - Consultations
- 1% - Comprised of five activity types: Residential Services, Specific Education, Community Development, Vocational Services, and No Show

Service events that are *primarily* regarding the care of an individual family member of a survivor are recorded in the "family service events" section of ABIIS. In the 2011-12 fiscal year, there were 60 events recorded totaling 22 hours of service and 47 attendees. The type of activity recorded for these events is as follows:

- 58% - Family Consultations
- 22% - Family Education
- 8% - Family Follow-up
- 7% - Family Psycho-social Services
- 5% - Family Case Management

The number of activities recorded in the "family service events" section of ABIIS is quite small. To reiterate, the events in this section should be those that were for the primary benefit of family members.

For the "community group events" section of ABIIS in 2011-12, there were only three community events recorded as serving "family members", and all three events were recorded as being delivered by the South Outreach Team. These three events served 32 attendees and provided over 6 hours of service to family members. There were additional activities recorded as being "family support" groups which served 219 attendees and provided 34 hours of service time.

There are a number of reasons why the ABIIS statistics reflecting family work seem to be limited. It may be that because education and psychosocial work with families becomes enmeshed in the work that benefits survivors, that most service time is recorded as being a "client service event" statistic. It may also be that the events that benefit families are through group activities such as support groups, education events, or coffee groups, and as there are many options for recording such events in ABIIS, it may be very hard to tease out of the database. Further work is needed to clarify with front-line staff where work with families is recorded in ABIIS, and for what reason, so that consistent strategies for recording events can be adopted by all Partnership programs, and so that a more accurate picture of family work can be derived from our information system.

EDUCATION AND PREVENTION

The ABI Partnership Project funds a Provincial Education and Prevention Coordinator who is housed at the ABI Provincial Office. In addition to this position there are three Regional Education and Prevention Coordinators and two provincial education and prevention programs (Saskatchewan Brain Injury Association and Saskatchewan Prevention Institute). Together these programs work to educate communities about brain injury and the efforts that can be made towards preventing them.

Provincial Education and Prevention Coordinator

In August of 1996, a Provincial ABI Education and Prevention Coordinator position was awarded to the former Moose Jaw Thunder Creek Health District. The original document developed to guide the Acquired Brain Injury (ABI) Project, *Acquired Brain Injury: A Strategy for Services* [1], called for the appointment of an educational, injury prevention and research person for the province. The primary role of this position is to coordinate prevention, education and research activities related to ABI with regional health authorities, community agencies, survivors, and family members throughout Saskatchewan.

In addition to provincial activities, the Provincial Coordinator sits on several national working committees. These include two Canadian Standards Association Technical Committees, Provincial (Saskatchewan) Lead for the Canadian Falls Prevention Curriculum, and the Canadian Collaborating Centres on Injury Prevention Committee.

Introduction to ABI

The Provincial Education and Prevention Coordinator, in partnership with various Partnership staff, provides an introductory course on the basics of ABI. Originally this course was made available to orient new staff of the Partnership and meant to provide introductory information. Training seats have since expanded to include professionals and individuals from other sectors. The last session was videotaped in order to provide introductory brain injury information when requested between course offerings. The Introduction to ABI course provides a basic level of knowledge in the following areas:

- Anatomy and function of the brain
- Mechanics of brain injury and indicators of impairment
- Neuropsychological testing
- Stages of recovery
- The brain and behavior
- Return to work/school
- Addictions and ABI
- Survivor and family perspective
- Cognitive interventions and communication
- Seizures and medication
- Communication

As a way of strengthening service delivery in the North, planning is underway to investigate the possibility of delivering a modified version of Introduction to ABI in fall 2012 in Prince Albert. The Partnership is working on identifying whether it would be suiTable to provide this course via telehealth.

Provincial Conferences

Staying Stronger Together - Brain Injury Association of Canada National Conference 2010

The ABI Partnership Project collaborated with the *Brain Injury Association of Canada* (BIAC) and *Saskatchewan Brain Injury Association* (SBIA) by sponsoring BIAC's 7th Annual National Conference entitled, "***Staying Stronger Together***" in Regina. There were approximately 200 attendees who gathered with a vested interest in making life better for brain injury survivors. The conference was held over three days (September 30th – October 2nd, 2010) and featured a variety of speakers from across Canada and the United States. Sessions were targeted to a variety of audiences: professionals, family, survivors, caregivers, advocates and researchers. Evaluations from attendees revealed that the conference was a great success. In addition to general knowledge transfer, it provided a great opportunity for networking among professionals, survivors, family and friends.

Working towards Optimal Outcomes – Brain Trust 2011

In 2011, the Partnership's Brain Trust Conference focused on "Optimal Outcomes". The Keynote speaker was Dr. James Malec: co-author of the Mayo-Portland Adaptability Inventory. The additional speaker was Traci Foster: Certified Fitzmaurice Voicework Teacher, Creative Development Coach and Performing Artist.

The focus of Dr. Malec's workshops was on two particular areas: *Resource Facilitation for Vocational and Community Reintegration and the Mayo-Portland Adaptability Inventory (MPAI-4).* Resource Facilitation is described as an intervention designed to develop a network of medical and community care and support to assist individuals with disabilities to participate fully in family, work, and community life. The MPAI-4 is the outcome measure used by the Partnership for evaluating clients with acquired brain injury and the rehabilitation programs that serve them. The MPAI-4 assesses basic cognitive and physical abilities, emotional and interpersonal adjustment, and community participation. In order to increase Partnership staff comfort with the administration of the MPAI-4, this conference session provided in-depth information on its validity and use and further explored the fundamental features of Resource Facilitation as a tool to enhance their clinical practice.

Traci Foster looked at achieving optimal outcomes by exploring creative ways to work with people living with acquired brain injuries as well as tools to promote professional development and self care for the professionals working in this area. The session followed the slogan - *art for the health of it!*

Participant evaluations from this conference provided suggestions on future conference topics:

- Concussion
- Challenging Behaviours
- Family
- ABI and Addictions
- ABI and Aging

- Stress, Coping Skills and Relaxation

Education Days/Support

The Provincial Education and Prevention Coordinator organizes and/or partners with other agencies by direct sponsorship and promotion of education sessions on specific clinical, injury prevention and educational topics.

Falls Prevention in Seniors Across the Continuum of Care Conference, March 24 - 25, 2011

The *Falls Prevention in Seniors across the Continuum of Care Conference* provided an evidence-based update on the interdisciplinary approach to the prevention of falls in older adults in three primary practice areas: acute care, long-term care and community care. The ABI Education and Prevention Coordinator was a member of the planning committee and the Partnership sponsored the event. There were 209 registered participants.

Speech Language Pathologist Update for Adult Populations – Regina Qu'Appelle Health Region, September 30 - October 1, 2011

The ABI Partnership sponsored this event.

Complementary and Alternative Medicine (CAM): Supporting Patients and Families in Making Informed and Safe Choices (Brain Tumour Foundation Health Professionals Day), May 19, 2011

The Provincial Education and Prevention Coordinator organized and facilitated this event for the Partnership programs, as well as provided funding.

Capacity Assessment Conference – Regina Qu'Appelle Health Region, April 16 - 17, 2012

The ABI Partnership sponsored this event.

What are the Odds? – Ministry of Health Mental Health, Addictions, Problem Gambling and the ABI Partnership, April 30, 2012

This youth conference was a joint offering of the Ministry of Health's Mental Health, Addictions, Problem Gambling and Injury Prevention (delivered by the ABI Partnership) program areas and was held at the Saskatchewan Science Centre. The event was attended by 130 grade seven and eight students and explored risk-taking behaviour and the consequences that may occur as it relates to the four areas. Students were provided with resources and information about how to analyze risk and minimize negative effects. The event was evaluated very positively by the teachers that participated. Student pre- and post-test results showed an increase in knowledge of the four program areas at the end of the day.

Concussion Round Table – Saskatchewan Brain Injury Association, May 27, 2012

The Partnership supported this event by assisting with planning, financing and event attendance. The event was hosted by Ken Dryden and Jim Hopson and was a solution-focused discussion that explored ways to reduce concussion in sport. The event also looked at ways to improve standards,

lower risks and reduce general injury in sport. Athletes, coaches, researchers and members of the medical community participated on the panel.

Safe Saskatchewan

Safe Saskatchewan is a public/private sector-funded registered non-profit organization officially launched January 20, 2005. The objective of this coalition is to achieve a continuous reduction in the number of unintentional injuries in Saskatchewan. The Ministry of Health and SGI are founding members of Safe Saskatchewan and provide annual funding to it. The ABI Provincial Education and Prevention Coordinator represents Saskatchewan Health on the Safe Saskatchewan Steering Committee, as well as the Safety Education Strategy Steering Committee (a partnership with the Ministry of Education) and the Seniors' Falls Provincial Steering Committee. The Regional Education and Prevention Coordinators and members of the Saskatchewan Prevention Institute also participate with Safe Saskatchewan activities.

Community Grants

In 1997, the ABI Partnership Project and SGI have been involved in a joint program to provide community grants for traffic safety and ABI prevention programs. The goal of the Community Grants program is to enable community groups to establish, enhance and deliver programs that address safety issues in their communities.

Through the ABI Partnership Project, both SGI and the Ministry of Health jointly fund this community grant program. In recent grant cycles, SGI has provided additional funding specifically aimed toward road safety issues. Since the Community Grant Program was started in the fall of 2007, a total of 1,825 projects have been funded for a grand total of $1,717,976 (46% to rural projects, and 54% to Urban Projects). On average, 94 applications are received per deadline, and approximately 61 of these applications are awarded.

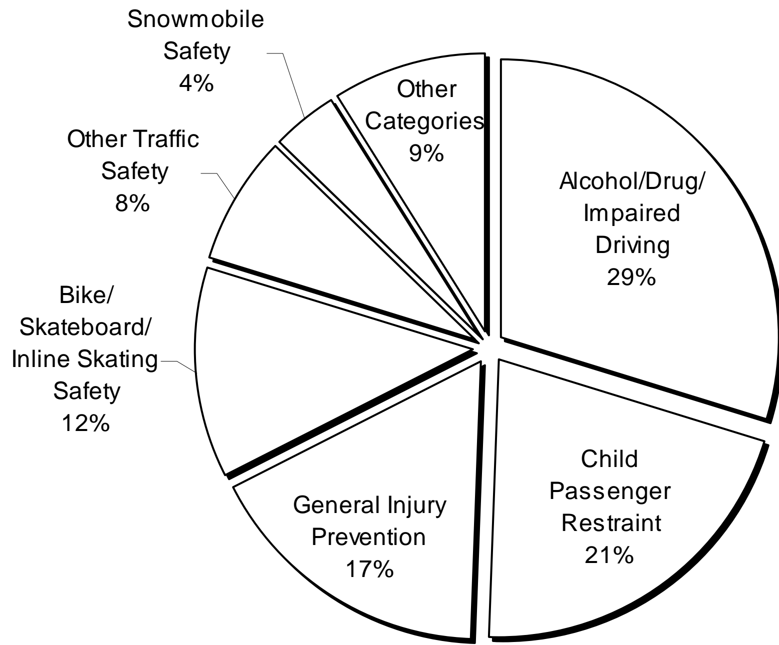
Table 12: Grants Program Funding from October 1997 to February 2012

	Rural	Urban	Grand Total
# of Applications	1890	924	2814
# of Projects Funded	1236	589	1825
% of Applications Approved	65%	64%	65%
Funding Approved	$ 794,475	$ 923,502	$ 1,717,976
% of total Funding	46%	54%	100%

The types of requests that are made to the community grant program vary among the regions. Examples of requests for funds include (but are not limited to) the following: to purchase car safety seats, to purchase bike helmets, to have guest speakers make a presentation, or to purchase prizes for safety courses.

For the 2010-11 fiscal year, a total of $122,269 was awarded to Saskatchewan communities, and in 2011-12, a total of $86,130 was awarded. As shown in Figure 10, the top three project categories remain the same as in previous years and account for more than 60% of total funds awarded for these two fiscal years.

Figure 10: Community Grants awarded by Project Type (2010-11 and 2011-12 Fiscal Years Combined)



As shown in Table 13, there is a relatively equal distribution of funding between rural and urban communities.

Table 13: Community Grant Funding Awarded by Project Category and by Location (Rural/Urban) for the 2010-11 and 2011-12 Fiscal Years.

Project Category	2010-11 Fiscal Year			2011-12 Fiscal Year			Funding for both Fiscal Years
	Rural	Urban	Total	Rural	Urban	Total	
Alcohol/Drug/Impaired Driving	$24,110	$12,629	$36,739	$12,737	$12,701	$25,438	$62,177
Child Passenger Restraint	$8,600	$15,060	$23,660	$10,300	$9,425	$19,725	$43,385
General Injury Prevention	$10,200	$12,950	$23,150	$4,750	$6,950	$11,700	$34,850
Bike/Skateboard/Inline Skating Safety	$5,925	$9,418	$15,343	$4,850	$5,850	$10,700	$25,443
Other Traffic Safety	$1,000	$6,269	$7,269	$7,807	$1,000	$8,807	$16,076
Snowmobile Safety	$7,070	$0	$7,070	$900	$0	$900	$7,970
Senior Safety	$500	$4,121	$4,621	$0	$500	$500	$5,121
Falls in Seniors	$0	$0	$0	$3,500	$0	$3,500	$3,500
ATV/Motorcycle Safety	$2,000	$0	$2,000	$1,100	$0	$1,100	$3,100
First Aid / CPR	$1,200	$0	$1,200	$1,000	$760	$1,760	$2,960
Sport and Recreation Safety	$0	$600	$600	$1,500	$0	$1,500	$2,100
Farm Safety	$618	$0	$618	$500	$0	$500	$1,118
Pedestrian Safety	$0	$0	$0	$0	$0	$0	$0
Playground Safety	$0	$0	$0	$0	$0	$0	$0
Shaken Baby	$0	$0	$0	$0	$0	$0	$0
Water Safety	$0	$0	$0	$0	$0	$0	$0
Workplace Safety	$0	$0	$0	$0	$0	$0	$0
Grand Total	**$61,223**	**$61,046**	**$122,269**	**$48,944**	**$37,186**	**$86,130**	**$208,399**

Falls Prevention Training

Canadian Falls Prevention Curriculum (CFPC)

The CFPC basic and facilitator courses are available in English and French as two-day workshops offered in most provinces in Canada. The national distribution of the CFPC is coordinated through the BC Injury Research and Prevention Unit (BCIRPU), in partnership with provincial leads in each province (the Provincial Education and Prevention Coordinator, Kelly Froehlich in Saskatchewan) and territory, and delivered by trained facilitators across the country on a cost-recovery basis. An e-learning version in English is offered through the University of Victoria Continuing Education Department.

For seniors, the risk of falling and sustaining an injury is influenced by a broad set of health determinants, including physical, behavioural, environmental, social and economic factors. These wide-ranging contributors to falls can only be ameliorated by the coordinated and sustained

approach of a multi-sectoral team of health professionals and community leaders who are well informed in evidence-based practices for prevention.

The Canadian Falls Prevention Curriculum is designed to build on existing knowledge and skills of health professionals and community leaders working in the area of falls prevention among older adults (those 65 and over). The CFPC was developed under the leadership of Dr. Vicky Scott, in collaboration with national fall and injury prevention experts, researchers and health educators. The goal of the CFPC is to give participants the knowledge and skills needed to operate from a evidence-based approach to seniors falls and fall-related injury prevention, including: a) an approach to selection of interventions consistent with proven prevention strategies; b) an understanding of how to integrate falls prevention programming into existing seniors' health services policies and protocols; and c) knowledge of appropriate evaluation and dissemination techniques. The course also gives participants insight into how to involve seniors as partners in the development of effective strategies and interventions. Participants learn about current effective programs, and the reliability and validity of existing resources and tools for screening and assessing fall risk. To ensure the potential for synergy in falls prevention along the continuum of services for seniors, the course covers a number of settings – community organizations, home support, health service delivery, long-term care, acute care, rehabilitation and emergency services.

The CFPC has been offered several times in Saskatchewan and the license and provincial coordination is facilitated through the ABI Partnership. The most recent offerings of the course occurred June 2010, May 2011, October 2011 and June 2012. All of these sessions were organized and facilitated by the Saskatoon Health Region. Attempts to offer the course in the South has not been successful.

Regional Education and Prevention Coordinators

Three Regional Education and Prevention Coordinators are located in Regina, Saskatoon, and Prince Albert. The Regional ABI Education & Prevention Coordinators support community-based injury prevention and brain injury education initiatives. The goals of the coordinators include:

- To promote the need for injury prevention and ABI education initiatives in communities
- To engage communities to become involved in injury prevention
- To assist communities to plan, implement, and evaluate injury prevention initiatives

In general, the ABI Education & Prevention Coordinators provide research, education, promotion, community development, and resources to communities on the following topics:

- Acquired Brain Injury
- All-Terrain Vehicle Safety
- Bicycle Safety
- The Brain
- Child Passenger Safety
- Fall Prevention
- Farm Safety
- Helmet Usage
- Home Safety

- Impaired Driving Prevention
- Mild Brain Injury
- *No Regrets* Program
- Playground Safety
- Snowmobile Safety
- Sports & Recreation Safety
- Traffic Safety (pedestrian, bus)
- Water & Boating Safety

The primary activities of the ABI Education & Prevention Coordinator are to:

- Facilitate the introduction of Brain Walk and PARTY programs to communities
- Recognize and build capacity within communities to identify and address injury issues using available resources and data
- Initiate and maintain partnerships with other agencies, community members, other health professionals, and other ABI funded projects
- Research, develop, and distribute information and resources about the brain, brain injury, and injury prevention

For the 2011-12 fiscal year, the service time recorded by the education and prevention coordinators in ABIIS can be broken down as follows:

- Community Development 27%
- Administration & Evaluation 25%
- Program Preparation & Follow-up 15%
- Education & Training 15%
- Research & Professional Development 12%
- Resource Development 6%
- Promotion 2%
- Survivor/Family Support 0.1%

The one-quarter of service time spent on community development reflects the two priorities listed earlier: "working with communities to promote the need for injury prevention and ABI education initiatives" and "engaging communities to become involved in injury prevention". One-quarter of all service time is also spent on administration and evaluation. This reflects the third priority: "To assist communities to plan, implement, and evaluate injury prevention initiatives."

Table 14 shows the breakdown of service hours by the activity/event topic area. This Table shows that 58% of service time is focused on two events: General Injury Prevention, and the PARTY program.

Table 14: Education and Prevention Regional Coordinators Service Hours by Event Topic area and by the Type of Service, 2011-12

Type of Service/Program	Administration & Evaluation	Community Development	Education & Training	Program Preparation & Follow-up	Promotion	Research & Professional Development	Resource Development	Survivor/Family Support	Grand Total
General Injury Prevention	494	225	30	45	18	95	25	0	931
PARTY	65	272	236	207	11	60	28	0	879
Fall Prevention	6	83	64	67	0	32	17	0	268
ABI Partnership Project	152	31	3	13	3	22	8	0	230
Acquired Brain Injury	2	59	22	9	1	28	33	0	153
Brain Walk	9	33	23	19	1	24	16	0	123
No Regrets	28	15	14	35	8	2	2	0	103
Mild Brain Injury	8	12	12	5	3	36	7	1	82
Child Passenger Safety	3	36	25	7	0	6	5	0	81
Snowmobile Safety	7	3	2	39	5	15	10	0	80
The Brain	3	24	19	23	3	8	0	0	80
Helmet Use	0	7	9	5	1	9	9	0	39
Traffic Safety	0	20	1	0	1	5	4	0	30
Bicycle Safety	3	14	1	1	0	8	1	0	27
Sports & Recreation Safety	4	3	0	2	0	6	3	0	17
Home Safety	0	6	2	0	0	2	0	0	10
All Terrain Vehicle Safety	1	0	0	1	0	2	6	0	10
Impaired Driving Prevention	0	1	1	1	0	3	3	0	8
Pedestrian Safety	1	0	0	0	0	4	0	0	5
Support Group	1	0	0	0	0	0	0	4	5
School Bus Safety	0	0	0	0	1	0	3	0	4
Stroke Prevention	0	0	0	0	0	2	1	0	3
Farm Safety	0	1	0	0	1	0	0	0	1
Safe Communities	0	0	0	1	0	0	0	0	1
Water & Boating Safety	0	0	0	1	0	0	0	0	1
Total Number of Hours	**784**	**842**	**462**	**476**	**56**	**366**	**175**	**5**	**3,165**

No Regrets

Piloted nationally in 2003, SMARTRISK *No Regrets* is a high school-based peer leadership program that trains staff advisers and student leaders to raise awareness and implement injury prevention activities and events in their schools. These activities and events are designed to promote at least one of the SMARTRISK five key messages (Buckle Up, Look First, Wear the Gear, Get Trained, and Drive Sober) and influence the risk-taking behaviour of students related to activities such as: driving, biking, skateboarding, skiing, snowboarding, snowmobiling, and partying. A recent evaluation of the

program found that students reported 17% fewer injuries requiring medical care following a single year's exposure to the program's messages.

In 2011, SGI and the ABI Prevention and Education Coordinators partnered to bring the program to several high schools in Saskatchewan. Training was offered to the students and teachers, and the Coordinators continue to act as a support and resource to the schools as they roll out their programs.

In the 2011-12 fiscal year, there were 107 service hours dedicated to this program recorded in ABIIS. The recipients of services recorded were, in order of most to least frequently reported: Children/Youth/Students, Educators/Teachers, Other Audiences, Professionals, and Health Care Professionals. The breakdown of the time dedicated to these events is as follows:

- Program Preparation & Follow-up 36%
- Administration & Evaluation 26%
- Community Development 14%
- Education & Training 13%
- Promotion 8%
- Research & Professional Development 2%
- Resource Development 1%

Prevent Alcohol and Risk Related Trauma in Youth (PARTY) Program

In response to a high annual rate of impaired driving-related crashes in young drivers as well as other high-risk behaviour, the Regional Education and Prevention Coordinators obtained and began implementing a new program in the province in 2004 to address alcohol and risk-related injuries in youth.

Students 14-19 years old experience a full-day session that involves following the path of an injury survivor and meeting the professionals that would care for them in a trauma situation. Paramedics, Police, Nurses and Therapists and others describe the painful journey of a trauma patient. Facts are presented about head and spinal cord injury, and the students have hands-on experience with the equipment used in trauma care and rehabilitation. The most powerful part of the day is the injury survivor presentation. Young people talk frankly about their injuries, the events that lead to the injury and what their lives are like now. Students have the opportunity to ask questions of these speakers and learn what life is like after an injury.

In the 2011-12 fiscal year, there were 1,091 service hours dedicated to the PARTY program recorded in ABIIS. Most of the recipients of services recorded (90%) were, in order of most to least frequently reported: Children/Youth/Students, Community Service Providers, Health Care Professionals and Educators/Teachers, and other audiences. The breakdown of the time dedicated to these events can be broken down as follows:

- Education & Training 34%
- Community Development 29%
- Program Preparation & Follow-up 20%
- Administration & Evaluation 8%
- Research & Professional Development 6%

- Resource Development 3%
- Promotion 1%

Brain Walk

Brain Walk is an interactive walk through of the brain, which helps students learn about the brain's functions and about keeping the brain safe. It is targeted toward kindergarten to grade 6 students, but is easily adapted for audiences of all ages. It was created by the ABI Partnership and based on the "Body Walk" model that was developed by the former Saskatchewan Northern Health Services Branch (now Mamawetan Churchill River and Keewatin Yatthé Health Regions).

Brain Walk sends students through 10 different stations highlighting the different areas of the brain and its functions. It also includes stations that demonstrate how to protect the brain, how alcohol and drugs affect the brain, and what it would be like if you hurt your brain. Each station involves demonstrations, activities, displays, and questions. The students travel around the stations in groups of five or six, and have five to six minutes at each station. Each station is managed by a volunteer facilitator.

The students, teachers, and volunteers evaluate each session. In addition, a questionnaire is administered to the students, pre- and post-presentation, that measures change in knowledge. Brain Walk has become a core educational activity of the Partnership targeting elementary-school aged children. Based on past feedback, it is expected it will continue to be frequently delivered and positively received for many years to come. School (teachers and volunteers) and student feedback continues to be very positive.

In the 2010-11 fiscal year, there were 167 service hours dedicated to this program recorded in ABIIS. Most of the recipients of services recorded (97%) were, in order of most to least frequently reported: Children/Youth/Students, Health Care Professionals, Educators/Teachers, and Other Audiences. The breakdown of the time dedicated to these events can be broken down as follows:

- Education & Training 36%
- Community Development 22%
- Research & Professional Development 16%
- Program Preparation & Follow-up 11%
- Resource Development 10%
- Administration & Evaluation 5%
- Promotion 0.3%

Safety Resource Kits

Teachers, public health nurses and other community members are regularly seeking out and requesting resources, information, presentations and agency linkages on a variety of injury prevention and safety topics. Many of these requests were of a similar nature in terms of either topic area (e.g., bicycle safety), resource requested (e.g., examples of different helmets), agency information, or presentation requests.

The ABI Education and Prevention Safety Resource Kits provide educators within the province with demonstration equipment and interactive activities to assist in the delivery of injury prevention initiatives. Borrowers within each health region have timely access, at no cost, to a variety of resource kits that include, but are not limited to, topics such as: Falls, Bicycle Safety, Blade/Board/Scooter Safety, The Brain, Playground Safety, School Bus and Pedestrian Safety, Water and Boating Safety, Winter Sport Safety, Helmet Usage, Home Safety (for children, adults, and seniors), Farm and ATV Safety, General Injury Prevention, Child Passenger Restraint, and Impaired Driving.

The Resource Kits are a collection of established and readily available resources, such as videos, posters, fact sheets, and safety equipment. These kits provide communities with access to resources and alleviates pressure on the ABI Education & Prevention Coordinators to prepare a presentation, travel to a community, and deliver a presentation. This saves time and resources. It also gives the community members ownership of the information and puts responsibility on the community to follow up with the issue.

Each Regional Coordinator has developed one complete set of 15 different safety resource kits. Feedback obtained from comment forms continues to be very positive lending support to the continued value of this resource to the province.

Saskatchewan Prevention Institute (SPI)

The Saskatchewan Prevention Institute (SPI) is a provincial non-profit organization located in Saskatoon that is funded to raise awareness and deliver education about the prevention of acquired brain injury in children.

The focus areas of the child injury prevention program were determined based on the evidence and supporting research on the main causes of acquired brain injury among children as well as what interventions are most effective in reducing these types of injuries. Injury prevention interventions include education, legislation, and engineering approaches. The SPI strives to implement multifaceted strategies combining these three methods whenever possible in order to successfully reduce acquired brain injuries among children in Saskatchewan.

Some of the key activities focused on by SPI - Child Injury Program include:

- Child Passenger Safety, including technician training, car seat clinics, and continuing education.
- Bicycle Safety, including the development of resources, conducting helmet usage/attitude surveys, and the organization and participation in Bicycle Safety Week.
- Million Messages - Collaboration with the Alberta Centre for Injury Control and Research was successful in developing and distributing a physician counseling resource throughout Saskatchewan to family physicians, pediatricians, first nation community health clinics, and nurse practitioners. This resource was evaluated during the initial distribution during 2011/12 and will continue to be evaluated in 2012/13.
- Playground Safety, including the development of the Playground Safety Workshop Resource Manual and other resources.
- Home Safety, including presentations and distribution of resource materials and checklists.

- Resource Development – the Prevention Institute distributed 28, 426 copies of 54 different resources in 2011-12. A new resource was developed to address age-specific home safety tips. The resource is for parents and caregivers and is three separate brochures that cover three age ranges of birth to 1, 1 to 4, and 5 to 9. A total of 6,000 copies were printed, with 2,000 of each brochure printed. All child injury prevention resources are reviewed and updated as required.
- Farm Safety – Partnership with Farmers with Disabilities program and Sask Abilities Council continued in 2011-12 – this collaboration resulted in a successful ***"Progressive Agriculture Safety Day"*** at Clavet School.
- Website – Two new topics were created on the child injury website: All-Terrain Vehicle Safety and Home Safety for Children with Special Needs. Additional changes to the child injury website include providing links to resources, web-pages and videos found on other professional websites, updating information within the website, and improving the user-friendliness of the website. Website changes will continue in 2012/13 to ensure up-to-date information is easily accessible by parents, caregivers and professionals. New topics plan to be included in the website including concussions, appropriate helmet use for various activities, snowmobiles, and farm safety.
- The Child Injury Connection Newsletter is created by the program and distributed by email to a wide range of health care professionals, early childhood workers, parents, caregivers and other individuals who have requested to be on the newsletter distribution list. Topics included in the newsletters during the 2011/12 year included: bicycle safety week, helmet use, fire safety, emergency preparedness training, tanning beds and teens, child pedestrian safety, playground safety, accessible playgrounds, asphyxial games in children, product safety, safe sleep, winter and car seats, winter and helmet use, healthy lifestyles, all-terrain vehicles, hand washing, honey and infants, upcoming events and an overview of the topic areas and resources available from the Institute.
- A research and evaluation project is planned for the 2012/13 year. Numerous focus groups are planned throughout rural Saskatchewan to examine parental beliefs of helmet efficacy and to examine child helmet use in various activities. The aim is for better understanding of the barriers to helmet use in rural Saskatchewan for various activities and to gain information from focus group participants on effective education tools to reach rural Saskatchewan parents. SPI will create an appropriate resource based on participant feedback and have it evaluated by the focus groups during the development phase. Information from the helmet review created in 2011/12 will be used to provide education to the focus group participants after discussion is complete.

Child Injury Program profiled in the Good Practice Guide

The Child Injury Program funded through the Saskatchewan Prevention Institute, was profiled as a case study of 'good practice' in the Child Safe Good Practice Guide: *Good investments in unintentional child injury prevention and safety promotion* – Canadian Edition. This is a national resource which provides communities with a quick reference resource as to whether their practice meets standards. This program was referenced as a, **"Good practice for system leadership, infrastructure and capacity to support child injury prevention".**

For the 2011-12 fiscal year, the Saskatchewan Prevention Institute recorded 1,006 hours of service time in the "Community Events" section of ABIIS. This service time can be broken down by topic area as follows:

- General Injury Prevention 36%
- Bicycle Safety 26%
- All Terrain Vehicle Safety 15%
- Farm Safety 11%
- Home Safety 5%
- Child Passenger Safety 5%
- Acquired Brain Injury 2%
- No Regrets 0.4%
- Helmet Use 0.3%

The breakdown of service time by type of activity is as follows:

- Resource Development 49%
- Education & Training 30%
- Research & Professional Development 7%
- Program Preparation & Follow-up 7%
- Community Development 4%
- Administration & Evaluation 3%

Saskatchewan Brain Injury Association (SBIA)

SBIA is a provincial organization that works in partnership with other community organizations to create and enhance services and programs for people with ABI, their families and caregivers. Through the notion of group and individual experiences, SBIA offers education and support services to ABI survivors and their families.

SBIA provides assistance to various survivor and/or their family members throughout the province. Local-level involvement is organized by "Chapters". These Chapters conduct a variety of activities, including group meetings for support. SBIA Chapters are currently active in the communities of Regina, Saskatoon, Prince Albert, Yorkton and Moose Jaw. The type of support provided by SBIA to these groups includes the development, implementation and facilitation of programming for ABI clients. Programming may include group walks, facilitated drumming sessions, holiday celebrations and lunch n' learn days. These groups utilize the self-help/mutual aid model.

SBIA also provides educational/support events each year. Three major SBIA events are held throughout the year around the province. In March SBIA hosts their Spring Retreat in Saskatoon. Early June the Survivor and Family Camp is held at Arlington Beach. In October the Fall Retreat is held in Regina. These events provide survivors and their families an opportunity to meet with other people who have shared a similar experience while learning from each other and guest presenters. Personal development content at each event covers a variety of topics to promote learning and self-care. Feedback regarding the events is obtained by questionnaire. Past feedback has been positive,

revealing that survivors and families feel the events have helped them deal with the challenges they experience and assist with stress reduction

A toll free telephone number is provided by SBIA for Saskatchewan residents to easily access support, information and referral services. Inquiries may require basic information on ABI or direction to the appropriate service(s). SBIA provides educational materials, displays and presentation in a variety of venues. SBIA has an introduction to head injury booklet and toolbox which are distributed through hospitals to families of brain injury survivors as a way to assist in their understanding of the new path a brain injury can lead them. In addition, SBIA maintains a resource library that is utilized by survivors, health care professionals and students.

The SBIA website has information about brain injury, prevention, support chapters, events and links to additional information. SBIA also makes use of social media sites such as Facebook and Twitter. The website provides a link to the quarterly SBIA newsletter which is distributed to those who request it. The newsletter provides a general overview of past events that have occurred in support of ABI survivors, families and brain injury education.

SBIA has launched two brain injury prevention programs aimed at children and youth: the "Save your Melon" campaign which is aimed at increasing helmet use particularly among children. And the "Take brain injury out of play" campaign which is aimed at sports players of all ages in an effort to encourage players to be cognizant of the risks.

For the 2011-12 fiscal year, the Saskatchewan Brain Injury Association recorded 3,916 hours of service time in the "Community Events" section of ABIIS. This service time can be broken down by topic area as follows:

- Acquired Brain Injury 55%
- Support Group 37%
- Sports & Recreation Safety 4%
- Education on Brain Injury 4%
- Family Support 1%
- Helmet Use 0.1%

The breakdown of service time by type of activity is as follows:

- Survivor/Family Support 29%
- Administration & Evaluation 21%
- Program Preparation&Follow-up 20%
- Resource Development 19%
- Promotion 7%
- Community Development 3%

Education and Prevention Events Recorded in ABIIS

Across all of the funded agencies in the Partnership, there were 9,623 Community Service Events recorded in ABIIS serving a total of 41,126 attendees. The breakdown of these activities is shown in Table 15.

Table 15: All Education and Prevention Events recorded in ABIIS for the 2011-12 Fiscal Year by Type of Service Program

Type of Service/Program	# Events	Service Time (Hours)	# of Attendees
Bicycle Safety	30	294	15,468
General Injury Prevention	512	1,362	5,582
PARTY	486	1,091	5,332
Support Group	617	2,082	4,117
Acquired Brain Injury	590	2,493	2,173
Education on Brain Injury	91	359	1,831
Brain Walk	91	167	1,246
Fall Prevention	129	284	705
Snowmobile Safety	39	80	640
ABI Partnership Project	128	272	585
The Brain	44	87	541
Child Passenger Safety	66	150	530
Stroke Prevention	9	16	499
All Terrain Vehicle Safety	13	167	368
Traffic Safety	32	52	232
Family Support	12	34	219
Farm Safety	7	113	214
Helmet Use	24	45	190
Education on Partnership Project	8	17	133
Mild Brain Injury	60	90	133
Prevention Topics	5	10	105
Pedestrian Safety	5	11	86
No Regrets	48	107	80
Home Safety	13	64	67
Impaired Driving Prevention	7	10	49
Sports & Recreation Safety	47	165	1
Safe Communities	1	1	-
School Bus Safety	3	4	-
Water & Boating Safety	1	1	-
Grand Total	**3,118**	**9,623**	**41,126**

PUBLIC RELATIONS

ABI Partnership Project Re-Branding

In the spring of 2010, a new ABI Partnership Project logo was unveiled at the Partnership Celebration banquet.

This re-branding of the Partnership Program was in response to Advisory Group discussion on how to increase awareness of our program. Since 2010, this new logo has been used by the ABI Provincial Office on the Partnership's publications (e.g., program review report, staff survey report, pamphlets, memos), as well as displayed on banner bugs used at education and prevention events. Funded agencies have also incorporated the logo on their materials.

Website

At the end of the last SGI contract period, the advisory group expressed an interest in improving the publicity of the Partnership Project, including the development of a website. It was discussed that this website could include resources, discussion forums, and varying levels of access for survivors and families, professionals, and the public. The ABI Provincial Office worked on this idea for the rest of the fiscal year, and on April 1st, 2010, the Acquired Brain Injury Partnership Project website was unveiled: www.abipartnership.sk.ca

The overall aim of the website is to be more responsive within the Partnership by providing timely access to information and fostering internal dialogue (through a web-based forum) and outside the Partnership by increasing our public profile, as well as providing current and timely access to information.

The website also includes a Staff Forum board which is a section for Partnership service providers only. This Forum board can be used for discussing ABI related topics, as long as information is kept confidential and private (i.e., no identifying information is to be used when discussing clients). However, as of yet, there is little to no activity on the forum board. The provincial office intends to further explore options for increasing the utility of this section for service providers.

Statistics on Website Usage

The following website usage statistics were derived from Google Analytics (report run on June 1, 2012). These statistics filter out all visits made to the website by the Saskatchewan Ministry of Health. This is to filter out visits that may have occurred by the ABI Provincial Office in order to update the website. In the 2011-12 fiscal year, there were a total of 1,364 visitors to the ABI Partnership Project Website for a total of 1,889 visits.

The following analysis will be from all website visits since it was unveiled on April 1, 2010 to the end of the 2011-12 fiscal year. In this timeframe, there were 1,659 unique visitors to our website for an average of 2,376 total visits. As shown in Figure 11, traffic to our website has increased over time.

Figure 11: Visits to the ABI Partnership Website from 2010 to March 31, 2012

Source: Google Analytics, run June 1, 2012

Sixty-nine percent of the website visits during this time were from new people, and 31% were returning visits. Of the total visits recorded, 1,655 (70%) were from Saskatchewan, and 38% of Saskatchewan visits were from returning users. The breakdown of website visits from Saskatchewan is shown in Table 16.

Table 16: ABI Partnership Visits from Saskatchewan Communities, Apr 2010-Mar 2012

City	Visits	Pages/Visit	Avg. Visit Duration	% New Visits	Bounce Rate[3]
Saskatoon	853	4	0:03:20	59%	40%
Regina	459	4	0:02:55	71%	36%
Prince Albert	103	5	0:03:56	51%	29%
Moose Jaw	60	4	0:03:06	30%	32%
Weyburn	31	3	0:01:25	68%	55%
North Battleford	23	4	0:02:09	91%	48%
Yorkton	19	4	0:01:26	89%	47%
Elfros	16	6	0:02:44	13%	25%
Swift Current	16	3	0:03:16	75%	44%
Estevan	12	5	0:03:54	58%	33%
Melfort	11	5	0:03:47	91%	36%
Wadena	8	6	0:05:01	13%	13%
Lloydminster	6	2	0:03:12	83%	50%

In addition to the website visits shown in the Table 16, there were visits from 20 communities where the number of visits was recorded as being five or less. These 38 visitors from the 20 communities listed below spent an average of six minutes viewing the website, and viewed an average of six pages each.

1. Assiniboia
2. Carlyle
3. City not Available
4. Edam
5. Esterhazy
6. Gravelbourg
7. Griffin
8. Humboldt
9. Kindersley
10. Lampman
11. Maple Creek
12. Meadow Lake
13. Melville
14. Moosomin
15. Nipawin
16. Norquay
17. Shaunavon
18. Shellbrook
19. Unity
20. Wynyard

The most frequently viewed content by Saskatchewan visitors in shown in Table 17.

[3] Bounce Rate is the percentage of single-page visits (i.e., visits in which the person left your site from the entrance page).

Table 17: Most Frequently viewed Website Pages by Saskatchewan viewers from April 2010 to March 2012

	Pageviews	Avg. Time on Page	Entrances*
Home Page	1319	0:00:57	858
Resources and Publications	385	0:01:43	31
Education and Prevention	362	0:00:27	16
Survivors and Families	362	0:00:35	13
Professionals	350	0:00:44	1
contact_us/abi-outreach-teams	276	0:01:34	133
calendar	258	0:00:54	21
contact_us	245	0:01:06	1
abi-survivors-and-families/Local_Support_Groups	187	0:01:42	118
abi-survivors-and-families/community-abi-programs	181	0:00:48	56
what-is-an-abi	180	0:01:46	5
about_us	177	0:01:14	6
FAQs	172	0:00:55	31
abi-survivors-and-families/map-of-services	171	0:01:25	36
whats_new	160	0:00:37	7
whats_new: Capacity Assessment Conference 2012	134	0:01:15	57
abi-survivors-and-families/community-abi-programs/central-abi-programs	131	0:02:37	75
abi-education-prevention/education-prevention-coordinators	116	0:00:44	9
search	95	0:00:18	2
Calendar	72	0:00:21	0
abi-education-prevention/resource-kits	71	0:00:52	1
abi-resources-publications/Newsletters	67	0:01:45	2
abi-survivors-and-families/survival-guide	58	0:01:27	2

* Number of Times this is the 1st page viewed

EXTERNAL EVALUATIONS

At the end of the last contract period with SGI, the Partnership's Advisory Group expressed interest in engaging in some external research. The ABI Provincial Office explored a number of options, and decided that a Request-for-Proposal (RFP) would be the best method for recruiting potential external researchers. The topics for the research were vetted through the Partnership's Outcomes Working Group and three targeted research projects were decided upon.

On November 27th, 2009, the ABI Provincial Office posted the Request-for-Proposals (RFPs). These RFPs closed on December 18th, 2009, and adjudication committees met throughout January 2010 to choose the successful applicants:

1. **Laurence Thompson Strategic Consulting**, Saskatoon (Project: An evaluation project on the ABI Partnership Project's service delivery model that will inform service best-practice)

2. **R.A. Malatest and Associates**, Edmonton (Project: An evaluation project on the ABI Partnership Project's service delivery model that will inform service best-practice for difficult to serve populations)

3. **BC Injury Research and Prevention Unit**, Vancouver (Project: A review of international best-practices for improving Child Passenger Safety, and an evaluation of Saskatchewan's Program)

Laurence Thompson Strategic Consulting

"What aspects of service delivery are most effective for eliciting positive outcomes for ABI survivors?"

The Laurence Thompson Strategic Consulting (LTSC) group was contracted to complete one of three external evaluations of the Partnership in the 2010-13 contract period. LTSC was chosen to complete an evaluation on the Partnership's general services model. While guided by the principal research question above, the Partnership also requested that three program components be assessed: the therapeutic relationship, service availability and client engagement with service. The evaluation took place from May 2010 to June 2011 and was guided by 20 research questions. LTSC employed a methodology that included a high level literature review, in-person interviews with 25 staff, 15 ABI survivors and 11 family members across the Province, and review of ABI Partnership Project data collected from 2004 – 2010 regarding client registrations, services and outcomes. There were two evaluation frameworks used to evaluate the Partnership: a program logic model and a client journey map.

This evaluation looked at a variety of data sources. Such data included a complete set of all client registration data in the ABIIS for the period of April 1, 2004 to March 31, 2010 (total of six government fiscal years). The registration data made it possible for LTSC to analyze: client characteristics that help to identify independent living status such as workforce attachment factors and the clients' living situation; all service data for the same period provided a measurement of

actual program activities and outputs; and the financial data (i.e., operating costs) to compare program inputs to outputs of funded agencies and for provincial coordination. In order to measure client outcomes Mayo-Portland Adaptability Inventory (MPAI-4) pre- and post-scores and aggregate goal attainment records were also utilized.

Key Findings:

LTSC conducted a literature review to determine that ABI programs under the Partnership are based on current best practice knowledge. Clients and families were generally very positive about their relationship with service providers; service availability was found to be good in Regina, Saskatoon and Prince Albert but is less available with distance from larger urban centres; and clients are successful in participating in services provided they have a good rapport with service providers (family support also assists in supporting this participation). Thirteen recommendations for program improvement were given and were grouped into two main areas: 1) Improvement of data collection, quality and management, and 2) Service Delivery Improvement. High-level areas for program improvement were broadly identified as: i) more emphasis placed on delivering cognitive and behavioural interventions which have shown evidence of effectiveness, ii) exploring linkages between client service utilization and outcome data, iii) analyzing the relationship of program inputs and outputs, and iv) increasing the focus on support systems by addressing family needs and addressing housing gaps through collaboration with other community partners. Based on the recommendations produced in LTSC's final report, the ABI Partnership has begun action on: enhancing client outcome data, targeting training options available to staff and increasing education and awareness of ABI services in Saskatchewan [17].

The full report can be found on the ABI Partnership website at www.abipartnership.sk.ca under Resources and Publications.

R.A. Malatest & Associates Ltd.

Evaluation of the ABI Partnership Project's Service Delivery Model for Difficult to Serve Populations

This study was structured to study three Key Evaluation Questions:
"Which groups are difficult to serve, and in what ways are they difficult to serve?"
"Which aspects of service delivery are most effective for eliciting positive outcomes for difficult-to-serve ABI survivor populations?"
"Are there best practices that can be identified for working with difficult-to-serve groups?"

The study employed the following primary and secondary research tools:

- a literature review
- key informant interviews (10)
- a service provider survey of ABI Partnership front-line staff with 57 out of a possible 83 respondents for a response rate of 69%; and
- a case file review (utilizing 2008-09 fiscal year ABIIS data with 244 case files reviewed across the three outreach teams. Of these 244 client files, files were flagged as complex or not complex and the file samples were compared).

To gain a better understanding of the characteristics of complex ABI clientele, a literature review was first conducted. In addition to background documents supplied by the ABI Partnership Project, the evaluator reviewed a broad scope of journals roughly covering the areas of neuroscience, disabilities, brain injury and rehabilitation.

Key Findings:

From the survey results and case file review process, it is estimated that over 1/3 of clients (38%) would be classified as difficult-to-serve or complex cases.

Complex clients often have compounding issues above and beyond their ABI. According to a number of service providers, complex clients are 20% of a client caseload but take up 80% of the practitioner's service time.

Analysis of the data from the service provider survey, focus groups, key informant interviews and literature review identified [18] the most common factors in a client being difficult-to-serve as:

- Substance abuse issues
- Mental health needs
- Living in remote or inaccessible locations
- Economic factors (low socio-economic status and homelessness)
- Severe brain injury (in particular, specific types of brain injury such as frontal lobe damage)
- Low or Insufficient Family Support.

The effects of serving complex clientele include service provider burn-out and challenges in obtaining appropriate services for these complex clients because of their multiple conditions.

Best Practice Recommendations

Seven Best Practice recommendations were suggested by the evaluator to equip ABI Partnership funded agencies with service delivery tools to better meet the needs of complex clientele:
1) Better collaboration among all those involved in rehabilitation
2) Develop an internship or mentorship program for new service providers
3) Allow information sharing on a large scale throughout the Partnership
4) Follow through with client referrals
5) Proactive case management
6) Adopt motivational interviewing techniques
7) Adopt culturally safe practices to better serve Aboriginal clients

Service Gaps

A number of service barriers were also noted that are beyond the immediate scope and ability of the ABI Partnership Project service providers to address independent of other sectors/partners:

1) Service Barriers
2) Addiction and Mental Health
3) Program Goals

4) Housing Limitations
5) Education Provisions for Acute Care Practitioners and Families
6) Substance Abuse Treatment and ABI programming in tandem

British Columbia Injury Research and Prevention Unit (BCIRPU)

Review of International Best-Practices for Improving Child Passenger Safety and Evaluation of Saskatchewan's Program

"Is Saskatchewan's model for child passenger restraints appropriate for increasing the rate of usage, and the rate of proper usage?"

Rationale:

The safety of child passengers is a programmatic concern of the ABI Partnership Project as it has been demonstrated that motor vehicle crashes are the leading cause of death and injury among Canadian children younger than 14 years of age (Snowdon et al., 2008).

Further, according to the Saskatchewan Comprehensive Injury Surveillance Report, 1995 - 2005, injury is the leading cause of death among children ages 0 to 9 years in Saskatchewan (excluding perinatal illness and congenital issues) [20].

The education efforts of the Saskatchewan Child Passenger Safety program work to prevent the child injuries occurring in motor vehicles in our province.

The ABI Partnership contracted with the British Columbia Injury Research Prevention Unit (BCIRPU) to conduct an evaluation of this program to examine how the Saskatchewan model compares to current best practices, determine the model's effectiveness and describe the match between the burden of child passenger injury and mortality and the Saskatchewan model [21]. This evaluation points to opportunities for program improvements in the Child Passsenger Safety Program. The evaluation work was organized under seven discrete projects and sought to answer six key evaluation questions.

The Saskatchewan Model of Child Passenger Safety consists primarily of education of parents/caregivers through the training of certified Child Passenger Safety Technicians, child passenger safety clinics and the distribution of resources. This is supplemented with some distribution of car seats to particular high risk populations through community grants and the enforcement of child restraint laws. The Child Passenger Safety Program currently consists of two dedicated staff positions at the Saskatchewan Prevention Institute - the Child Traffic Safety Coordinator (funded through Traffic Safety at SGI) and the Child Injury Prevention Coordinator (funded through the ABI Partnership Project). The program further benefits from resource development and distribution, advertising and supplemental staff support provided through the Traffic Safety Division of SGI.

1) How does the Saskatchewan model compare to international best-practices?

- Strong evidence was found in the literature to support child passenger safety education in combination with either incentive/distribution programs or enforcement campaigns.

2) Does the Saskatchewan model increase usage of child passenger restraints?

- The Saskatchewan model is associated with a decrease in number of children not restrained.

3) Does the Saskatchewan model increase PROPER usage of child passenger restraints?

- SGI's traffic accident information system (TAIS) data indicates a decrease in improper child passenger restraint use over time among children injured or killed in a motor vehicle crash.

- According to data from Transport Canada's roadside survey, the rate of correct use of child passenger safety seats in Saskatchewan has continuously declined since 1997. However, the definition for correct use has also changed over the years.

4) Do the demographics of caregivers involved in Saskatchewan interventions match the demographics of the Saskatchewan populations? Are there segments of the populations being missed?

- The program targets parents/caregivers of children ages 0-4 years. A car-seat clinic survey was conducted and the survey respondents were found to be well-educated with high income and primarily Caucasian. This indicates that there are targeting opportunities for parents/caregivers of lower socioeconomic status and other ethnicities.

5) Is there a match between the caregivers targeted by the Saskatchewan model, and the parents/guardians of the children injured in motor vehicle collisions? If not, what other method (from the international best practice review) could be used to target these parents/guardians?

- The systematic review of the literature did not reveal any target populations for child passenger safety programming, nor methods for targeting specific populations. BCIRPU suggested opportunities for partnering with hospitals and public health and with Aboriginal and Immigrant-serving organizations.

6) What is the cost-effectiveness of the Saskatchewan model?

- A return on investment ranging from $12 to $16 of costs avoided for every $1 invested in child passenger safety was found. This does not include other factors outside the program that contribute to Child Passenger Safety in the province.

The evaluation's recommendations were themed in three areas: Education; Equipment Incentive/Distribution; and Enforcement/Enactment.

Education – enhance efforts through increased use of Social Media, develop instructional DVDs on car-seat installation, increase education to law enforcement officers, review the upcoming Child Passenger Safety Tool Box for its potential to support or enhance Technician training.

Equipment Incentive/Distribution – formalize and target Distribution programs; promote child car seats that can be utilized for multiple years; expand community agency partnerships in the delivery of this program; and

Enforcement/Enactment – increase enforcement and child passenger safety blitzes; support the enactment of booster seat legislation.

Please contact Kelly Froehlich at the ABI Provincial Office if you would like more information on this report.

Priority Improvement Areas

With completion of the 'general service delivery model' evaluation in June 2011, the ABI Provincial Office felt it beneficial to begin work on addressing the recommendations that were developed from this evaluation. Of these recommendations the ABI Office identified six core improvement areas which were validated by SGI. After this time a survey was sent out to Partnership representatives in order to elicit their responses about which of the six improvements areas should become the immediate focus of the Partnership. Survey responses identified: *Client outcomes, training and public relations/education*, as the priority improvement areas for the Partnership project.

On November 28, 2011, consultant, Laura Soparlo facilitated a session, on behalf of the Partnership, which included Provincial ABI Advisory Group members and regional representatives from across Partnership funded agencies. This facilitated session allowed representatives to break into three working groups in an effort to engage in open dialogue around one of the pre-assigned improvement areas. The group dialogue was further encouraged by an eight step discussion guide. The steps were outlined as follows: *Background to improvement area; statement of the improvement gap or problem; aim for improvement, scope of the improvement, improvement measures; change ideas; key milestones; people resources and other resources.*

Throughout the day, groups worked through each discussion step and a number of questions as they related to the Model for Improvement. The related questions were meant to generate ideas on how the Partnership would advance the priority areas. Each group had a recorder and spokesperson who were responsible for periodically providing a report on the group's work when reconvened back into a larger group. By the end of the session all group work was collected and complied into one report that would inform future direction for program improvement. This final report was made available via the Partnership website staff forum for review and feedback to those ABI Partnership staff members who may not have been able to attend.

Based on this facilitated session the ABI Partnership has identified priority activities and begun work on them towards: improving client goal attainment categorization, specifically in the area of cognitive functioning; developing an orientation package of information/resources to orient and train new employees and serve as an update on best practices for more established ABI staff members; and refining Partnership referral processes to ensure professionals and the general public are aware of Partnership programs and the way(s) to access them. The ABI Provincial Office has begun work with front-line Partnership staff to address these priority improvement areas.

OTHER SUCCESSES

Making the Case for Best Practice

The ABI Partnership Project service model and two of its funded programs were featured in: ***Casebook of Exemplary Evidence-Informed Programs that Foster Community Participation After Acquired Brain Injury (2011).***

The casebook was written by a research team headed by Dr. Richard Volpe, University of Toronto, with funding received by the Ontario Neurotrauma Foundation.

Program selection was worldwide, through a systematic process measured against pre-defined criteria.

Our ABI Partnership in Saskatchewan is one of fifteen international programs selected for inclusion in the casebook. The other three Canadian programs featured were based in Ontario (two in London and one in Toronto). The other countries featured were: the United States (Kansas, Texas, Oregon, California, New Hampshire, Florida), Ireland, South Africa, The Netherlands and Australia (two programs in Victoria and Queensland).

The overall goal of the casebook is to help others learn about exemplary community-based ABI programs. It aims to make information about these programs accessible to service providers, policy makers, and researchers for possible replication and/or adaptation.

The casebook reviewed the fifteen programs selected against the concept of community participation defined as, "people after brain injury will be involved in aspects of their lives with the least amount of restriction as possible…enabling survivors to make decisions about the care and services they receive that allow them to become a part of community life that is meaningful, satisfying and socially productive" [22].

The casebook presented an overview of the Partnership service model, generally, and our client outcome measurement through goal setting and the Mayo-Portland Adaptability Inventory (MPAI-4). In addition, two funded programs were highlighted in the document - Saskatchewan Abilities Council, Saskatoon Branch's Aboriginal ABI Community Support Program (which is a program enhancement funded by additional grant dollars obtained outside of Partnership funds) and the Outreach Team model profiling the Sask South ABI Outreach Team in Regina Qu'Appelle Health Region.

Heather Finch was the project team's researcher who reviewed the Saskatchewan programs. She speaks to the success of the ABI Partnership and the two featured programs in helping ABI survivors meaningfully participate in their communities:

> The Partnership's coordination of services, Outreach Teams, and Aboriginal Community Support Program are particularly unique amongst programs for people with ABI and significantly contribute to helping people with ABI optimally participate in their

> communities….Much can be learned from the Partnership's collaboration and coordination of services, relationship building between staff and clients, attention to clients' needs and desires, and a focus on clients' goal attainment. Implementing a program with these key features has the potential to better serve any ABI community [21].

A link to the casebook has been posted to the *What's New* section on the ABI Partnership website homepage. To view it please visit www.abipartnership.sk.ca

CONCLUSIONS AND RECOMMENDATIONS

Limitations

Before drawing conclusions regarding the findings of the current report, certain limitations must be addressed:

- The examination of client improvement via the MPAI-4 was quasi-experimental as improvement could not be compared to the improvement that would naturally occur without the Partnership (i.e., there was no control group).
- There may be slight variations in the data provided by different service providers where ambiguity exists as to where and how to enter certain types of information into ABIIS.
- And finally, the authors of this evaluation are employed to project manage the ABI Partnership Project, and may have biased attitudes regarding the success of the Partnership. Although, this report also includes summaries from the three external evaluations contracted during this period, which were unbiased examinations.

Thus, the following conclusions should be viewed with these limitations in mind.

Conclusions

The ABI Partnership Project continues to be a valuable service to individuals with ABI and their families. In the last two fiscal years, the Partnership has provided service to 1,460 individuals (46% newly registered during the review period).

In 2011-12, the ABI Partnership recorded almost sixty thousand service hours to 1,087 clients. Client service event patterns have changed since the 1999-2003 evaluation which indicated that *case management* was the most common type of service. In the last three evaluation periods, *therapeutic activities* has been the most common service type. Within this category in 2011-12, 54% of the time was spent on Recreation & Leisure Activities, and 35% of activities were recorded as Psycho-Social Services.

For the first year, stroke tied motor vehicle collisions (all types) for the number one injury cause where each group represents 27% of all discrete clients. The analyses also showed that all of common injury groups, MVC clients continue to receive the greatest proportion of service time (31%). This is probably due to the fact that the clients in this category receive more service hours per client (at 44 hours/year) than any other injury type, and tie stroke for the greater proportion of clients. It is expected that MVC clients will continue to receive the greatest proportion of service time as the other major injury group, strokes, on average receive service for a shorter period of time and receive the least amount of service hours per year.

A total of 3,118 Community Group and Education and Prevention activities were recorded this period, with a total of 41,126 attendees.

The Partnership has continued to partner with other service providers both within and outside of the Partnership. This is illustrated by the 3,631 referrals in 2011-12 that were made to a wide variety

of programs. The Partnership also engaged in 1,282 consultations, the majority of which were regarding a specific individual.

In the 2004-06 Partnership Evaluation Report, there were no significant improvements found on MPAI-4 ratings between intake and after one year. It was decided that program impacts may not be seen over a one year timeframe, so the protocol was changed so that the second measurement was obtained after one-and-a-half versus one year. The current evaluation showed that for staff ratings a significant improvement was seen on all subscales, and all except two individual inventory items.

Consistent with the previous two Program Evaluation reports, the goal attainment summaries indicate a very high overall level of achievement. Of the goals submitted and not withdrawn in 2011-12 for discharged clients, 89% had some level of achievement (67% full achievement, 22% partially achieved).

The three external evaluations conducted this contract period confirm that the Partnership remains a comprehensive service continuum which provides quality services. Other aspects of the Partnership such as the outreach team model, the Saskatchewan Abilities Council (Saskatoon Branch) Aboriginal Community Support program and the Saskatchewan Prevention Institute's Child Injury Prevention program were additionally profiled in national best practice documents. These evaluations and other client outcome data gathered illustrate that the ABI Partnership Project continues to be meeting the unique needs of survivors. This is further indicated in goal attainment reporting, and these achieved client goals may be facilitating the functional improvements as seen in MPAI-4 ratings. The Partnership has continued to engage with other programs to provide a more informed service (as shown by consultation activities regarding specific individuals) and to connect clients to appropriate services given their unique needs (as indicated by the range of service referrals that were made this review period).

In addition to the Partnership's work in direct client service, the Education and Prevention programs have continued to be focused on their work at the community level. These programs have been working to recognize and build upon the capacity within communities to identify and address their injury rates. Education about brain injury, to further the understanding of the public, has also been a key role of these programs.

Recommendations

Update on 2007 – 2010 Evaluation Recommendations

As with all past review periods, there were a number of recommendations that were brought forward in the previous 2007-2010 Program Review. Since this time, continued work has been completed at many levels to address these recommendations.

Program Improvement

1. The ABI Provincial Office should continue to initiate improvements to the ABIIS:

In 2010, the ABIIS was updated to improve the utility of the reports, and to add a comments field to client registrations. During the course of the 2011–12 fiscal year, the Partnership made major

improvements to the ABIIS manual in an effort to increase readability and user-friendliness. Additional work is occurring in 2012-13 to clarify with front-line staff data definitions' accuracy and data coding discrepancies. The overall aim is to continue to communicate consistent data entry practices to our funded agencies in an ongoing effort to improve the ABIIS' overall data integrity.

2. The Partnership should engage in additional research activities that will provide information regarding long-term service utilization and needs of clients.

The ABI Partnership employed three external research teams to conduct research in regards to general service delivery, difficult to serve clients and a review of the child passenger safety program. Additionally, representatives of Partnership funded agencies, along with the Provincial ABI Advisory Group, engaged in a facilitated session with an external consultant to determine priority improvement areas for the Partnership. Results from these evaluation processes will inform our ongoing program improvement activities.

3. ABI Provincial Office should continue to request funded agency information regarding service barriers and gaps.

At the end of each fiscal year funded programs are asked to submit annual reporting documents. One piece of qualitative information that the Partnership continues to request from funded agencies is information on barriers and gaps as they are observed. This information is regularly reported back to the Provincial ABI Advisory Group. Additionally, questions regarding barriers and gaps to serving clients' needs were asked in the 2009 Staff Survey.

4. ABI Provincial Office should explore alternate forms of information sharing within the Partnership.

In April 2010, information about the Partnership was made available online on our new website - www.abipartnerhip.sk.ca.

As a part of this website development a Staff Forum section was created and made available to Partnership staff. The staff forum is a secure access section of the Partnership's website, and is intended only for funded agency use. Through a log-in screen, it allows staff to share clinical information and easily access the Partnership's current reporting templates. The website also offers funded agencies another avenue for public awareness regarding their services and resources. Funded agencies are encouraged to submit content regarding upcoming events, educational resources, or other information relevant to survivors, their families or professionals in the field of ABI. For example, the Partnership has a "What's New" section displayed on the home page as well as a Calendar of Events that both display current activities regarding brain injury both within and outside of the Partnership.

5. ABI Provincial Office should continue to monitor family needs, and support the delivery of services to address them.

The ABI Provincial Office continues to generate ABIIS reports in regards to services provided to families. Quarterly Outreach Managers' meetings and other Partnership networking Tables continue to bring family needs forward. In order to get a current snapshot of front-line work with families,

the Outreach Teams and the Regional Coordinators were polled about their current work with families in spring 2012. Work will continue around how to better meet family needs.

Education and Prevention

1. The Provincial Education and Prevention Coordinator should continue to advance the injury prevention agenda.

From 2006 – 2011 the Provincial Education and Prevention Coordinator was a member of the Injury Prevention and Control Task Group (IPCTG) under the Public Health Agency of Canada. With oversight from the Chronic Disease and Injury Prevention and Control Expert Group (CDIPCEG), the IPCTG developed *Injury Prevention in Canada: An Action Plan (2011-2020).* This report is a comprehensive, collaborative framework for federal, provincial and territorial (F/P/T) governments and their partners that recommends priorities and actions to reduce injuries in Canada over the next 10 years.

The Provincial Education and Prevention Coordinator sits on an intra-ministry committee to develop an injury prevention strategy for the Province of Saskatchewan.

2. Education and Prevention Coordinators should place more focus on community development work in the area of injury prevention rather than being a service provider.

Joint meetings have occurred and dialogue continues around the programming priorities of the Education and Prevention programs. These programs continue to be encouraged to utilize a community development approach to service delivery by recognizing and building upon the existing capacity in communities to address their injury prevention needs.

2010-12 Program Improvement Recommendations

As identified in the three external evaluations conducted this contract period, through ongoing feedback from our front-line funded agencies, and our Core Improvement facilitated session, there are a number of program improvement recommendations detailed below arising from this Program Review process.

Quality Improvements

The ABI Provincial Office should:
i) continue to liaise with front-line staff to make improvements to the Acquired Brain Injury Information System (ABIIS).

Client Outcomes

The ABI Provincial Office should:
i) liaise with front-line staff to review the current client outcome tools and update the goal attainment template to better capture cognitive/behavioural goals.

Family Support

The ABI Partnership should:
i) Continue to assess the needs of family and work to better address them through programming options tailored to them.
ii) Encourage front-line staff to address family needs, independent of survivors, where applicable/appropriate.

Communications

Website

The ABI Partnership should:
i) ensure content is updated on a regular basis and relevant links are added.
ii) encourage funded agency use of the website forum for clinical discussion and knowledge exchange.

Service Awareness and Access

Referral Mapping

The ABI Partnership should:
i) Work with front-line service providers to document our referral processes within and outside the Partnership.

ii) Encourage and facilitate proactive linkages (including referral processes and resource distribution) between acute care and the ABI Partnership.

Confirmation of Moderate to Severe Brain Injury

In order to ensure that we continue to meet the needs of our mandated target population (moderate to severe brain injured individuals), the ABI Provincial Office, in partnership with the three outreach teams, should:
i) develop and disseminate a protocol for other funded agencies to obtain support from/consult with Outreach Team managers where confirmation of moderate to severe brain injury cannot be easily ascertained.

Education

Staff Orientation

The ABI Partnership should:
i) review existing staff orientation resources, explore alternate delivery methods, and develop new and/or improved staff orientation resources/processes where needed, and
ii) investigate developing mentorship opportunities as part of this.

Staff Training

The ABI Provincial Office, in partnership with other community-based organizations and health regions, should facilitate and support Partnership staff attendance at relevant in-services/training sessions. Based on the August 2009 Staff Survey feedback as well as the external evaluation recommendations, specific sessions to support include:
i) continue to investigate and facilitate educational opportunities around best practices to better serve Aboriginal clients and communities.
ii) advertize upcoming motivational interviewing training sessions and support ABI Partnership staff attendance.
iii) poll staff and arrange for a refresher course on privacy legislation and client information-sharing, if staff interest determines that this is wanted.
iv) plan to deliver a Brain Trust focused on difficult behaviours in fall 2012.
v) offer education sessions in more of a regional workshop format.

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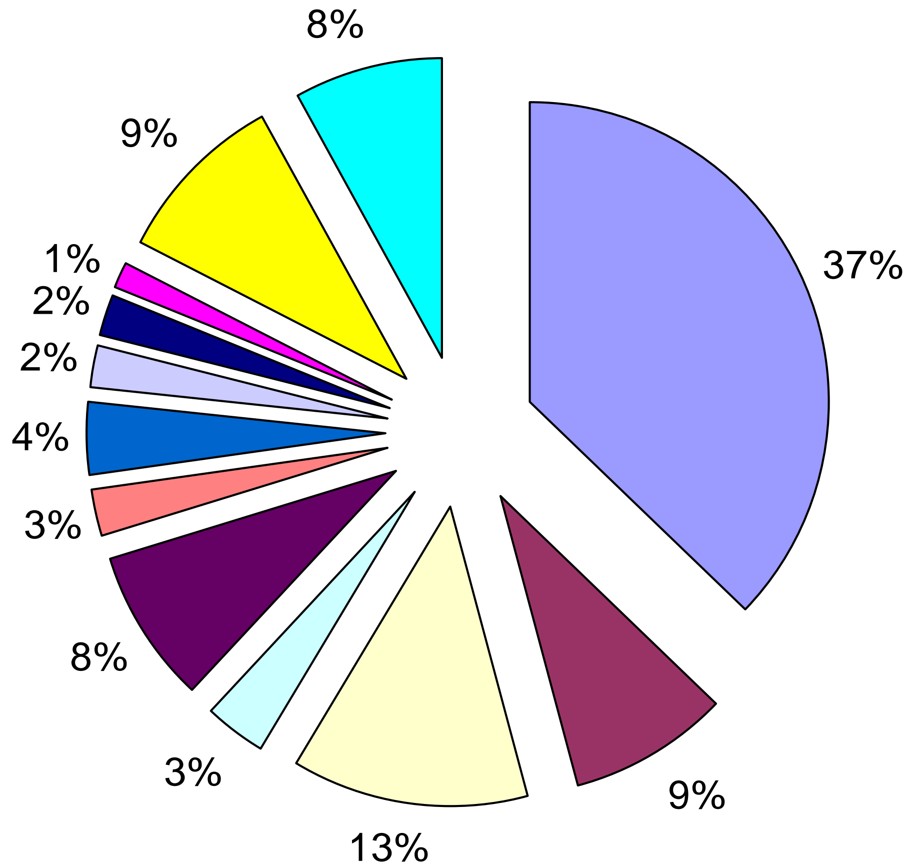
APPENDICES

APPENDIX 1 – Funding Charts

Figure 12: Percentage of Funding by Program Category, 2011-2012



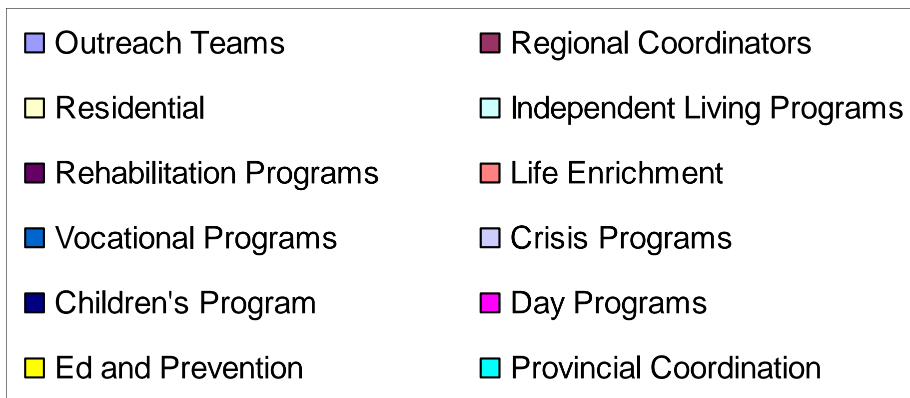
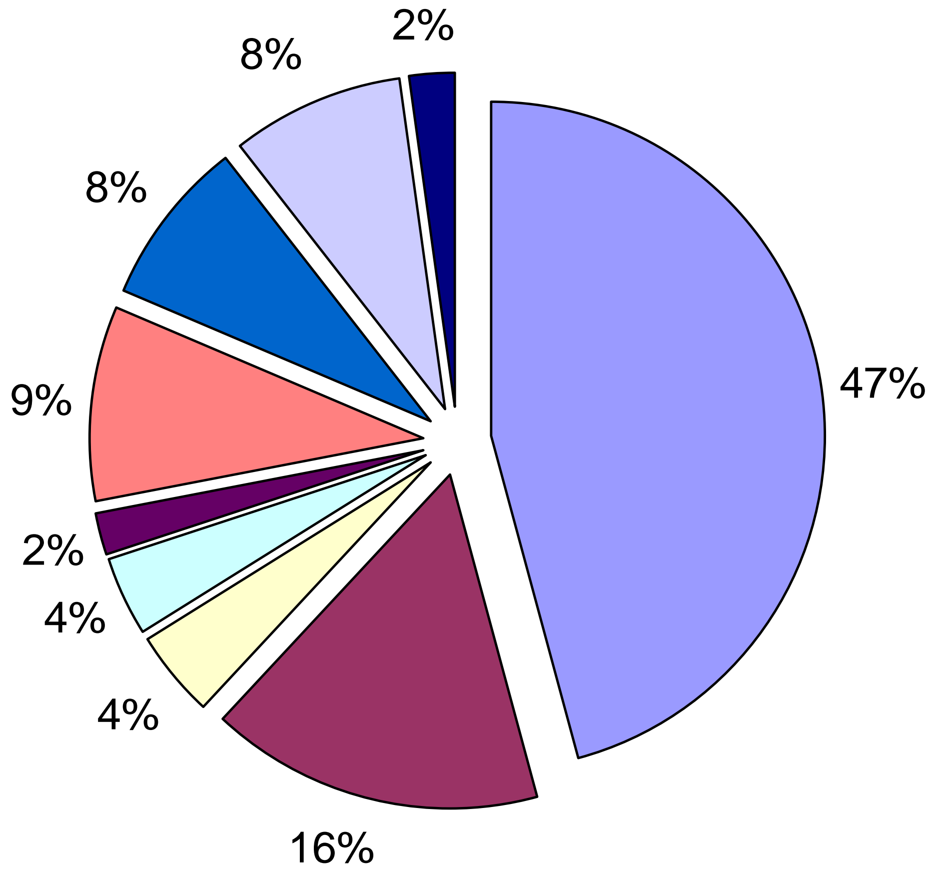
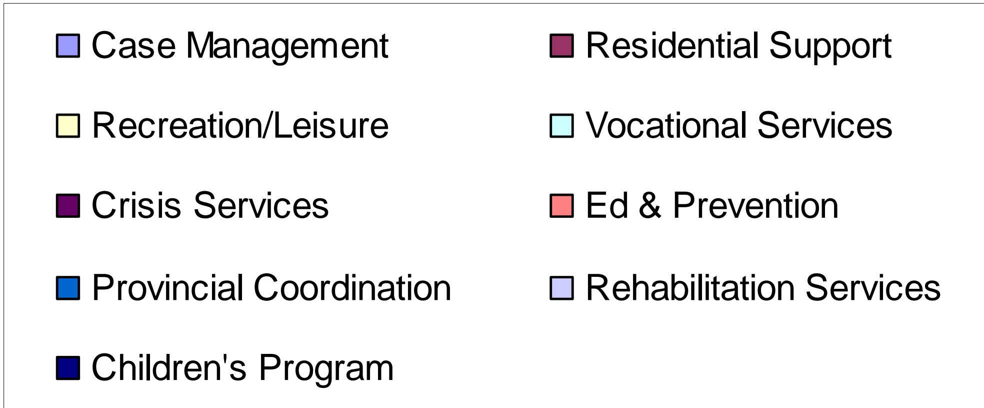


Figure 13: Percentage of Funding by Service Type, 2011-2012





APPENDIX 2 – Service Map

Acquired Brain Injury Partnership Project

Provincial Programs 2011-12 Funding
$4,649,742*

* Excludes:
Provincial
- Saskatchewan Health; 2 FTE
- Provincial Ed. & Prev. Coordinator; 1 FTE
- Ed. & Prev. Special Projects

Athabasca Health Authority

Keewatin Yatthé

Mamawetan Churchill River

Prairie North

Prince Albert Parkland

Kelsey Trail

Heartland

Saskatoon

Sunrise

Cypress

Five Hills

Regina Qu'Appelle

Sun Country

SASK NORTH
Total Population 2011 - 161,349
Total Area - 386,150 sq.km.
Total Funding - $942,643
Number of ABI Clients - 228

SASK CENTRAL
Total Population 2011 - 440,390
Total Area - 105,840 sq.km.
Total Funding - $1,567,033
Number of ABI Clients - 447

SASK SOUTH
Total Population 2011 - 482,387
Total Area - 157,640 sq.km.
Total Funding - $2,140,066
Number of ABI Clients - 651

Athabasca Health Authority
Covered Population 2011 - 2,743

Keewatin Yatthé
Covered Population 2011 - 12,032

Mamawetan Churchill River
Covered Population 2011 - 24,226

Prairie North
Covered Population 2011 - 78,237

Meadow Lake
- Multiworks

Lloydminster
- LABIS

North Battleford
- Coordinator

Prince Albert Parkland
Covered Population 2011 - 80,000

Prince Albert
- SNORT
- North Ed. & Prev. Coordinator
- PA Residential
- Rehab Assistant
- Keewatin Yatthé Rehab Service
- Mamawetan Churchill River Rehab Service

Kelsey Trail
Covered Population 2011 - 42,348

Melfort
- SLP

Kelvington
- East Central SARBI

Heartland
Covered Population 2011 - 44,051

Saskatoon
Covered Population 2011 - 318,102

Saskatoon
- SCORT
- RADIUS
- SAC SE Saskatoon
- SAC LE Saskatoon
- SARBI Saskatoon
- SBIA Satellite Office
- Saskatoon Crisis
- Sherbrooke
- Prevention Institute
- Central Ed. & Prev. Coordinator

Sunrise
Covered Population 2011 - 58,113

Yorkton
- Coordinator
- SAC LE Yorkton
- SIGN (ILWP)

Regina Qu'Appelle
Covered Population 2011 - 267,931

Regina
- SEORT
- PEARL
- SAC LE Regina
- SAC SE Regina
- SARBI Regina
- Mobile Crisis
- South Ed. & Prev. Coordinator

Sun Country
Covered Population 2011 - 56,529

Estevan
- SMILE (ILWP)

Cypress
Covered Population 2011 - 44,526

Swift Current
- Coordinator

Five Hills
Covered Population 2011 - 55,288

Moose Jaw
- Coordinator
- Thunder Creek Rehab
- SIBA Provincial Office

Weyburn
- Coordinator

ACQUIRED BRAIN INJURY
Partnership Project

APPENDIX 3 – Acquired Brain Injury Information System (ABIIS) Raw Data

Table 18: Trend Analysis for Cause of Injury by Fiscal Year, Discrete Clients

Cause of Injury	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
All-Terrain Vehicle (ATV) Crash	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	1%
Aneurysm	5%	5%	5%	6%	7%	7%	7%	7%	6%	5%	5%	6%
Anoxia	4%	3%	3%	3%	3%	3%	3%	3%	4%	2%	3%	3%
Bicycle	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Blow to head (assault)	7%	7%	7%	7%	6%	7%	8%	7%	6%	6%	7%	6%
Blow to head (diving accident)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Blow to head (not assault)	4%	4%	3%	4%	4%	4%	4%	3%	4%	2%	2%	1%
Blow to head (sports related)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	1%
Encephalitis/Meningitis	3%	3%	3%	3%	4%	3%	3%	3%	3%	2%	2%	3%
Fall	8%	7%	7%	7%	8%	7%	7%	7%	6%	7%	8%	7%
MVC (All Causes)	40%	43%	42%	39%	35%	33%	31%	32%	29%	31%	27%	27%
Other (not Traumatic Brain Injury)	9%	6%	7%	6%	7%	8%	9%	8%	7%	8%	6%	6%
Penetrating (missile wounds)	1%	1%	0%	0%	1%	1%	1%	1%	1%	1%	1%	0%
Shaken baby syndrome	0%	0%	0%	1%	1%	0%	0%	1%	1%	1%	1%	1%
Snowmobile Crash	1%	1%	1%	1%	1%	1%	0%	0%	0%	1%	1%	0%
Stroke	14%	16%	16%	16%	17%	18%	20%	21%	24%	24%	26%	27%
Traumatic Brain Injury (other)	5%	5%	5%	5%	4%	4%	3%	4%	5%	4%	3%	3%
Tumour	4%	5%	6%	7%	7%	8%	8%	9%	9%	9%	8%	8%
Total Clients	**1109**	**1048**	**937**	**903**	**945**	**941**	**959**	**948**	**1015**	**1047**	**1101**	**1032**

Table 19: Number of Active Client Registrations in the 2011-12 Fiscal Year (and Average Service Hours in brackets) by Cause of Injury and by Years since Registration (as of March 31, 2012)

YEARS (Rounded Down)	0 Years		1 Years		2 Years		3 Years		4 Years		5 Years	
CAUSE OF INJURY												
ATV Crash	2	(8)	3	(84)	2	(15)	0	(0)	0	(0)	0	(0)
Aneurysm	18	(37)	16	(19)	10	(52)	7	(23)	7	(28)	7	(13)
Anoxia	14	(40)	12	(51)	4	(17)	5	(24)	1	(18)	1	(316)
Bicycle	2	(1)	1	(40)	2	(12)	0	(0)	0	(0)	0	(0)
Blow to head (assault)	21	(45)	14	(43)	11	(15)	8	(14)	2	(16)	4	(36)
Blow to head (diving accident)	1	(12)	1	(1)	0	(0)	0	(0)	0	(0)	0	(0)
Blow to head (not assault)	2	(8)	3	(15)	1	(0)	0	(0)	0	(0)	0	(0)
Blow to head (sports related)	1	(2)	3	(34)	1	(132)	1	(6)	0	(0)	0	(0)
Encephalitis/Meningitis	8	(13)	4	(56)	4	(25)	2	(105)	1	(0)	2	(21)
Fall	25	(12)	21	(49)	10	(42)	8	(18)	6	(11)	3	(5)
MVC (ALL Types)	61	(23)	65	(17)	39	(72)	28	(53)	21	(126)	19	(18)
Motorcycle (driver)	2	(10)	4	(28)	4	(9)	0	(0)	4	(19)	2	(73)
Motorcycle (passenger)	2	(2)	1	(32)	2	(37)	2	(23)	3	(20)	2	(38)
MVC (bicycle)	3	(86)	2	(46)	0	(0)	1	(22)	1	(927)	0	(0)
MVC (driver/passenger in vehicle)	41	(22)	46	(17)	27	(86)	21	(48)	10	(157)	13	(8)
MVC (pedestrian)	13	(17)	12	(8)	6	(62)	4	(100)	3	(8)	2	(7)
Other (not TBI)	16	(16)	14	(34)	14	(18)	9	(39)	4	(8)	1	(2)
Penetrating (missile wounds)	1	(7)	0	(0)	1	(45)	0	(0)	1	(3)	0	(0)
Shaken baby syndrome	3	(7)	0	(0)	2	(24)	2	(21)	1	(21)	0	(0)
Snowmobile Crash	0	(0)	1	(0)	1	(3)	1	(3)	0	(0)	0	(0)
Stroke	139	(18)	73	(31)	53	(27)	25	(16)	15	(39)	12	(35)
Traumatic Brain Injury (other)	6	(9)	5	(66)	4	(11)	8	(27)	1	(9)	0	(0)
Tumour	26	(31)	14	(33)	17	(40)	9	(10)	7	(29)	7	(30)
All Injury Causes	346	(22)	250	(32)	176	(38)	113	(30)	67	(57)	56	(28)

YEARS (Rounded Down)	6 Years		7 Years		8 Years		9 Years		10 Years		11 or more Years		All Years	
CAUSE OF INJURY														
ATV Crash	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	7	(42)
Aneurysm	3	(8)	4	(47)	2	(31)	1	(339)	2	(3)	3	(21)	80	(33)
Anoxia	1	(10)	2	(92)	2	(374)	2	(88)	0	(0)	1	(14)	45	(63)
Bicycle	0	(0)	0	(0)	2	(6)	0	(0)	1	(32)	1	(45)	9	(17)
Blow to head (assault)	1	(21)	1	(11)	0	(0)	2	(81)	5	(39)	8	(42)	77	(35)
Blow to head (diving accident)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	2	(7)
Blow to head (not assault)	1	(1)	2	(367)	0	(0)	0	(0)	2	(1)	4	(870)	15	(267)
Blow to head (sports related)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	6	(40)
Encephalitis/Meningitis	1	(8)	4	(33)	1	(0)	2	(16)	1	(29)	5	(585)	35	(109)
Fall	2	(83)	2	(1)	1	(38)	6	(35)	0	(0)	3	(22)	87	(28)
MVC (ALL Types)	22	(49)	15	(64)	17	(51)	15	(46)	9	(86)	55	(33)	366	(44)
Motorcycle (driver)	2	(48)	0	(0)	0	(0)	0	(0)	0	(0)	5	(12)	23	(24)
Motorcycle (passenger)	1	(287)	0	(0)	0	(0)	0	(0)	0	(0)	1	(10)	14	(42)
MVC (bicycle)	0	(0)	1	(1)	2	(89)	0	(0)	0	(0)	8	(36)	18	(98)
MVC (driver/passenger in vehicle)	13	(36)	13	(70)	12	(39)	12	(48)	6	(128)	37	(28)	251	(44)
MVC (pedestrian)	6	(39)	1	(41)	3	(75)	3	(40)	3	(1)	4	(99)	60	(36)
Other (not TBI)	2	(33)	8	(83)	1	(8)	1	(7)	5	(240)	7	(13)	82	(41)
Penetrating (missile wounds)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	1	(168)	4	(56)
Shaken baby syndrome	0	(0)	0	(0)	0	(0)	0	(0)	1	(12)	2	(1)	11	(13)
Snowmobile Crash	0	(0)	0	(0)	1	(40)	0	(0)	2	(10)	1	(14)	7	(11)
Stroke	11	(22)	8	(59)	3	(96)	6	(49)	9	(57)	6	(39)	360	(27)
Traumatic Brain Injury (other)	2	(11)	2	(94)	3	(30)	0	(0)	1	(3)	5	(111)	37	(41)
Tumour	4	(6)	7	(37)	5	(67)	3	(70)	1	(2)	6	(12)	106	(32)
All Injury Causes	50	(33)	55	(69)	38	(66)	38	(56)	39	(71)	108	(91)	1338	(40)

*2 Clients did not have start date recorded, and thus were removed from the analysis

Table 20: Service Hours for Client Activities recorded in ABIIS in 2011-12 by Program Type by Type of Service

	Type of Service	Service Hours	% of Program Type's Total Service Time
Children's Program		**1,105**	
	Therapeutic Activities - Client	993	90%
	Administration - Client	63	6%
	Case Management - Client	45	4%
	No Show	4	0%
Crisis Programs		**746**	
	Case Management - Client	501	67%
	Therapeutic Activities - Client	101	14%
	Administration - Client	61	8%
	Life Skills Training - Client	40	5%
	Consultation - Client	19	3%
	Residential Services - Client	16	2%
	Community Development - Client	4	1%
	Specific Education - Client	2	0%
	(blank)	1	0%
	No Show	1	0%
Day Programs		**6,045**	
	Therapeutic Activities - Client	5,350	88%
	Life Skills Training - Client	689	11%
	(blank)	6	0%
Independent Living Programs		**1,278**	
	Therapeutic Activities - Client	325	25%
	Community Development - Client	273	21%
	Life Skills Training - Client	245	19%
	Residential Services - Client	141	11%
	Case Management - Client	115	9%
	Consultation - Client	79	6%
	Administration - Client	73	6%
	No Show	17	1%
	(blank)	10	1%
Life Enrichment Programs		**6,082**	
	Therapeutic Activities - Client	5,357	88%
	Case Management - Client	504	8%
	Administration - Client	177	3%

	Specific Education - Client	26	0%
	No Show	7	0%
	Consultation - Client	7	0%
	Life Skills Training - Client	2	0%
	Vocational Services - Client	1	0%
	Community Development - Client	1	0%
Outreach Teams		**11,423**	
	Case Management - Client	5,213	46%
	Therapeutic Activities - Client	2,169	19%
	Administration - Client	1,610	14%
	Consultation - Client	1,025	9%
	Life Skills Training - Client	609	5%
	(blank)	269	2%
	Residential Services - Client	234	2%
	Community Development - Client	126	1%
	Vocational Services - Client	112	1%
	Specific Education - Client	41	0%
	No Show	17	0%
Regional Coordinators		**1,726**	
	Case Management - Client	791	46%
	Community Development - Client	255	15%
	Therapeutic Activities - Client	216	13%
	(blank)	177	10%
	Administration - Client	114	7%
	Consultation - Client	102	6%
	No Show	32	2%
	Specific Education - Client	13	1%
	Vocational Services - Client	9	1%
	Life Skills Training - Client	9	0%
	Residential Services - Client	8	0%
Rehabilitation Programs		**10,588**	
	Therapeutic Activities - Client	10,430	99%
	Administration - Client	76	1%
	Case Management - Client	49	0%
	No Show	18	0%
	Life Skills Training - Client	16	0%
Residential Programs		**9,064**	
	Therapeutic Activities - Client	6,354	70%
	Life Skills Training - Client	1,211	13%
	Case Management - Client	576	6%

	Residential Services - Client	419	5%
	Administration - Client	162	2%
	Consultation - Client	125	1%
	(blank)	109	1%
	Community Development - Client	90	1%
	Vocational Services - Client	15	0%
	Specific Education - Client	3	0%
	No Show	0	0%
Vocational Programs		**6,382**	
	Life Skills Training - Client	4,987	78%
	Vocational Services - Client	956	15%
	Administration - Client	378	6%
	Consultation - Client	50	1%
	Case Management - Client	9	0%
	Community Development - Client	1	0%
	Specific Education - Client	1	0%
Grand Total		**54,438**	

Table 21: Service Hours for Client Activities recorded as "Therapeutic Activities" in 2011-12 by Program Type by Therapeutic Activity Category

	Therapeutic Activities Category	Service Time (Hours)	% of Program Type's Total Service Time
Children's Program		**993**	
	Recreation & Leisure Activities	993	100%
Crisis Programs		**101**	
	Psycho-Social Services	89	88%
	Behavioural Interventions	6	6%
	Cognitive Interventions/Training	3	3%
	Recreation & Leisure Activities	2	2%
	Nursing Interventions, including medication management	2	1%
Day Programs		**5,350**	
	Recreation & Leisure Activities	5,257	98%
	Psycho-Social Services	93	2%
Independent Living Programs		**325**	
	Recreation & Leisure Activities	105	32%
	Psycho-Social Services	95	29%
	Exercise	49	15%
	Speech Language Interventions	30	9%
	Physical Therapy Interventions	24	7%
	Nursing Interventions, including medication management	11	3%
	Cognitive Interventions/Training	7	2%
	Educational Services	4	1%
Life Enrichment Programs		**5,357**	
	Recreation & Leisure Activities		
Outreach Teams		**2,169**	
	Psycho-Social Services	641	30%
	Recreation & Leisure Activities	398	18%
	Occupational Therapy Interventions	308	14%
	Speech Language Interventions	290	13%
	Educational Services	196	9%
	Physical Therapy Interventions	173	8%
	Exercise	104	5%
	Nursing Interventions, including medication management	34	2%
	Behavioural Interventions	15	1%
	Cognitive Interventions/Training	10	0%

Category	Service	Count	%
Regional Coordinators		**216**	
	Psycho-Social Services	184	85%
	Cognitive Interventions/Training	15	7%
	Behavioural Interventions	5	3%
	Recreation & Leisure Activities	4	2%
	Occupational Therapy Interventions	3	2%
	Physical Therapy Interventions	2	1%
	Educational Services	1	0%
	Nursing Interventions, including medication management	1	0%
	Speech Language Interventions	1	0%
Rehabilitation Programs		**10,430**	
	Psycho-Social Services	7,925	76%
	Recreation & Leisure Activities	1,781	17%
	Exercise	455	4%
	Speech Language Interventions	182	2%
	Cognitive Interventions/Training	88	1%
Residential Programs		**6,354**	
	Recreation & Leisure Activities	2,885	45%
	Psycho-Social Services	1,820	29%
	Cognitive Interventions/Training	1,079	17%
	Exercise	225	4%
	Nursing Interventions, including medication management	188	3%
	Behavioural Interventions	101	2%
	Educational Services	31	0%
	Occupational Therapy Interventions	24	0%
	Speech Language Interventions	2	0%
	Physical Therapy Interventions	1	0%
Vocational Programs		**0**	
Grand Total			

Table 22: Referrals Initiated by ABI Partnership Programs in the 2011-12 Fiscal Year by Program Type and Referral Source

Program Type	To Referral Source	# of Referrals	% of Program Type's total Referrals Made
Children's Program		**395**	
	Miscellaneous	295	75%
	ABI Partnership Project Program	54	14%
	Recreation & Leisure Services	41	10%
	Service Clubs	5	1%
Crisis Programs		**32**	
	Addiction Services	24	75%
	Social Services	3	9%
	Community Services	2	6%
	Mental Health Services	2	6%
	Other Health Care Professionals	1	3%
Day Programs		**1,064**	
	Community Services	787	74%
	Long Term Care/Special Care Homes	174	16%
	Aboriginal Community	83	8%
	Day Program	20	2%
Independent Living Programs		**2**	
	ABI Regional Coordinator	1	50%
	Other Health Care Professionals	1	50%
Outreach Teams		**372**	
	Funding Resource	40	11%
	Mental Health Services	39	10%
	Other Health Care Professionals	32	9%
	ABI Outreach Team	31	8%
	Residential Services	30	8%
	Community Services	27	7%
	Long Term Care/Special Care Homes	24	6%
	Rehabilitation Services	21	6%
	Vocational/Avocational Services	18	5%
	Justice/Legal/Police Services	17	5%
	Aboriginal Community	16	4%
	Addiction Services	14	4%
	Home Care	11	3%
	Recreation & Leisure Services	9	2%
	SGI	9	2%
	Other Health Services	7	2%

	ABI Regional Coordinator	5	1%
	Miscellaneous	5	1%
	Family	3	1%
	Saskatchewan Brain Injury Association (SBIA)	3	1%
	ABI Partnership Project Program	2	1%
	Day Program	2	1%
	Private Therapies	2	1%
	ABI Education and Prevention Coordinator	1	0%
	Acute Care Services	1	0%
	Cognitive Disability Strategy	1	0%
	Service Clubs	1	0%
	Social Services	1	0%
Regional Coordinators		**147**	
	Mental Health Services	20	14%
	Other Health Care Professionals	15	10%
	SGI	15	10%
	ABI Outreach Team	11	7%
	Other Health Services	11	7%
	Residential Services	9	6%
	Social Services	9	6%
	Funding Resource	8	5%
	Vocational/Avocational Services	6	4%
	Education System	5	3%
	Rehabilitation Services	5	3%
	Children's Rehabilitation	4	3%
	Community Services	4	3%
	Addiction Services	3	2%
	Home Care	3	2%
	Saskatchewan Brain Injury Association (SBIA)	3	2%
	ABI Education and Prevention Coordinator	2	1%
	ABI Partnership Project Program	2	1%
	Day Program	2	1%
	Employability Assistance for People with Disabilities (EAPD)	2	1%
	Private Therapies	2	1%
	Recreation & Leisure Services	2	1%
	Aboriginal Community	1	1%
	Long Term Care/Special Care Homes	1	1%
	Sheltered Workshops/Training Centre	1	1%
	Workers' Compensation Board	1	1%
Residential Programs		**862**	
	Rehabilitation Services	782	91%
	Community Services	17	2%
	ABI Outreach Team	13	2%
	Other Health Care Professionals	9	1%

	Mental Health Services	7	1%
	Home Care	6	1%
	Funding Resource	5	1%
	Long Term Care/Special Care Homes	5	1%
	Residential Services	4	0%
	Miscellaneous	3	0%
	Recreation & Leisure Services	3	0%
	Addiction Services	2	0%
	Saskatchewan Brain Injury Association (SBIA)	2	0%
	Family	1	0%
	Other Health Services	1	0%
	Private Therapies	1	0%
	Vocational/Avocational Services	1	0%
Vocational Programs		**757**	
	Sheltered Workshops/Training Centre	742	98%
	Vocational/Avocational Services	14	2%
	ABI Outreach Team	1	0%
Grand Total		**3,631**	

Table 23: Client Registrations from 2011-12 by Referral Source

From Referral Source	Referrals	% of Total Referrals Received
Rehabilitation Services	230	17%
Other Health Care Professionals	203	15%
Acute Care Services	196	15%
ABI Outreach Team	170	13%
Family	91	7%
Client Self-referrals	84	6%
Sask South Outreach Team	31	2%
Sask Central Outreach Team	30	2%
ABI Regional Coordinator	29	2%
Long Term Care/Special Care Homes	28	2%
Social Services	24	2%
Mental Health Services	19	1%
Home Care	18	1%
Children's Rehabilitation	16	1%
SGI	12	1%
Education System	11	1%
Community Services	10	1%
Miscellaneous	10	1%
Phoenix Residential Society ABI Program	9	1%
Sask North Outreach Team	9	1%
Residential Services	8	1%
SAC Regina Supported Employment Program	8	1%
Health Centre	7	1%
Other Health Services	7	1%
Community Health	6	0%
Justice/Legal/Police Services	6	0%
Sun Country East RHA Coordinator-Estevan	6	0%
Wascana Rehabilitation Centre	6	0%
ABI Partnership Project Program	4	0%
Addiction Services	4	0%
Cognitive Disability Strategy	4	0%
Vocational/Avocational Services	4	0%
Workers' Compensation Board	4	0%
Aboriginal Community	3	0%
Community Centre	3	0%
Sunrise RHA Coordinator	3	0%
Career Headways	2	0%

Crisis Intervention Services - Saskatoon	2	0%
Five Hills RHA Coordinator	2	0%
Legal Services	2	0%
Mobile Crisis Services - Regina	2	0%
Private Therapies	2	0%
Radius	2	0%
ABI Education and Prevention Coordinator	1	0%
Funding Resource	1	0%
Multiworks-Meadow Lake	1	0%
Other Insurance Companies	1	0%
South ABI Education & Prevention Coodinator	1	0%
SAC Regina Life Enrichment Program	1	0%
SAC Saskatoon Supported Employment Program	1	0%
SARBI Regina	1	0%
Saskatchewan Brain Injury Association	1	0%
SIGN ILWP - Yorkton	1	0%
Sun Country Central RHA Coordinator	1	0%
		0%
Grand Total	**1338**	**100%**

Table 24: Client Registrations from 2011-12 by Referral Source and by Program Type

Program Type	From Referral Source	Referrals
Children's Program		**17**
	ABI Outreach Team	8
	Education System	2
	Mental Health Services	1
	Other Health Care Professionals	3
	Sask Central Outreach Team	3
Crisis Programs		**38**
	ABI Outreach Team	11
	Aboriginal Community	1
	Client Self-referrals	1
	Community Centre	1
	Community Services	3
	Crisis Intervention Services - Saskatoon	2
	Health Centre	1
	Legal Services	1
	Long Term Care/Special Care Homes	2
	Mental Health Services	4
	Miscellaneous	1
	Mobile Crisis Services - Regina	2
	Other Health Care Professionals	3
	Sask Central Outreach Team	1
	Sask South Outreach Team	3
	Social Services	1
Day Programs		**23**
	ABI Outreach Team	9
	Community Centre	2
	Community Health	2
	Community Services	3
	Family	4
	Long Term Care/Special Care Homes	2
	Other Health Care Professionals	1
Independent Living Programs		**33**
	ABI Outreach Team	2
	ABI Partnership Project Program	1
	ABI Regional Coordinator	9
	Family	2
	Mental Health Services	1
	Other Health Care Professionals	4
	Rehabilitation Services	3
	Sask South Outreach Team	4
	Sun Country Central RHA Coordinator - Weyburn	1

	Sun Country East RHA Coordinator-Estevan	5
	Sunrise RHA Coordinator	1
Life Enrichment Programs		**73**
	ABI Outreach Team	12
	ABI Regional Coordinator	9
	Career Headways	1
	Client Self-referrals	1
	Cognitive Disability Strategy	1
	Community Health	1
	Community Services	1
	Family	1
	Home Care	1
	Justice/Legal/Police Services	1
	Long Term Care/Special Care Homes	9
	Other Health Care Professionals	3
	Phoenix Residential Society ABI Program	6
	Rehabilitation Services	1
	Residential Services	1
	SAC Regina Life Enrichment Program	1
	SAC Regina Supported Employment Program	4
	SAC Saskatoon Supported Employment Program	1
	Sask Central Outreach Team	7
	Sask South Outreach Team	3
	SGI	1
	SIGN ILWP - Yorkton	1
	Social Services	1
	Sunrise RHA Coordinator	2
	Vocational/Avocational Services	1
	Wascana Rehabilitation Centre	2
Outreach Teams		**609**
	ABI Outreach Team	15
	ABI Partnership Project Program	1
	ABI Regional Coordinator	1
	Acute Care Services	185
	Addiction Services	1
	Children's Rehabilitation	15
	Client Self-referrals	33
	Cognitive Disability Strategy	1
	Education System	2
	Family	29
	Five Hills RHA Coordinator	1
	Funding Resource	1
	Health Centre	1
	Home Care	4
	Justice/Legal/Police Services	1
	Legal Services	1
	Long Term Care/Special Care Homes	3
	Mental Health Services	3

	Miscellaneous	2
	Other Health Care Professionals	90
	Other Insurance Companies	1
	Private Therapies	1
	Radius	2
	Rehabilitation Services	182
	Residential Services	3
	SARBI Regina	1
	Sask Central Outreach Team	1
	SGI	10
	Social Services	14
	Vocational/Avocational Services	1
	Wascana Rehabilitation Centre	3
Regional Coordinators		**220**
	ABI Education and Prevention Coordinator	1
	ABI Outreach Team	55
	ABI Regional Coordinator	9
	Aboriginal Community	1
	Acute Care Services	8
	Addiction Services	2
	Client Self-referrals	17
	Community Services	1
	Education System	5
	Family	16
	Health Centre	2
	Home Care	5
	Long Term Care/Special Care Homes	5
	Mental Health Services	3
	Other Health Care Professionals	35
	Other Health Services	1
	Private Therapies	1
	Rehabilitation Services	37
	Sask Central Outreach Team	2
	Sask South Outreach Team	10
	SGI	1
	Social Services	1
	Workers' Compensation Board	2
Rehabilitation Programs		**117**
	ABI Outreach Team	13
	ABI Partnership Project Program	2
	Acute Care Services	2
	Career Headways	1
	Community Health	2
	Family	20
	Health Centre	1
	Home Care	1
	Long Term Care/Special Care Homes	6
	Mental Health Services	1

	Miscellaneous	1
	Other Health Care Professionals	48
	Other Health Services	4
	Phoenix Residential Society ABI Program	1
	Rehabilitation Services	2
	SAC Regina Supported Employment Program	1
	Sask Central Outreach Team	6
	Sask South Outreach Team	5
Residential Programs		**84**
	ABI Outreach Team	12
	ABI Regional Coordinator	1
	Acute Care Services	1
	Addiction Services	1
	Children's Rehabilitation	1
	Client Self-referrals	8
	Cognitive Disability Strategy	1
	Family	9
	Health Centre	2
	Home Care	6
	Justice/Legal/Police Services	1
	Mental Health Services	5
	Miscellaneous	1
	Other Health Care Professionals	14
	P.A. Parkland RHA ABI Education & Prevention Coodinator	1
	Rehabilitation Services	4
	SAC Regina Supported Employment Program	2
	Sask North Outreach Team	8
	Sask South Outreach Team	3
	Saskatchewan Brain Injury Association (SBIA)	1
	Social Services	1
	Sun Country East RHA Coordinator-Estevan	1
Vocational Programs		**124**
	ABI Outreach Team	33
	Aboriginal Community	1
	Client Self-referrals	24
	Cognitive Disability Strategy	1
	Community Health	1
	Community Services	2
	Education System	2
	Family	10
	Five Hills RHA Coordinator	1
	Home Care	1
	Justice/Legal/Police Services	3
	Long Term Care/Special Care Homes	1
	Mental Health Services	1
	Miscellaneous	5
	Multiworks-Meadow Lake	1
	Other Health Care Professionals	2

	Other Health Services	2
	Phoenix Residential Society ABI Program	2
	Rehabilitation Services	1
	Residential Services	4
	SAC Regina Supported Employment Program	1
	Sask Central Outreach Team	10
	Sask North Outreach Team	1
	Sask South Outreach Team	3
	Social Services	6
	Vocational/Avocational Services	2
	Wascana Rehabilitation Centre	1
	Workers' Compensation Board	2
Grand Total		**1338**

APPENDIX 4 – Client Goal Attainment Template

Summary Report of Goal Attainment for:
Program Name: ______________________________ Date: __________________________

Goal Area	# Achieved	# Partially Achieved	# Not Achieved	# Withdrawn
Cognitive				
Memory				
Attention/concentration				
Functional Independence				
Transportation				
Handling money				
Nutrition/Meal Prep				
Dressing/Grooming/Hygiene				
Time/Fatigue Management				
Home Management				
Eating Skills				
Physical				
Housing				
Other:				
Psycho-social/Emotional				
Anger Management				
Stress Management				
Behaviour Management				
Pain Management				
Mood Management				
Relationships with others				
Sexuality				
Communication				
Recovery Activities				
Other:				
Community Activities				
Employment				
Education				
Leisure Activities				
Volunteering				
Community Involvement/Groups				
Spirituality				
Other:				
Other (Please specify)				
Advocacy				
Understanding ABI				
Crisis Intervention/Secondary Prevention				
Navigating medical system				
Navigating the Financial system				

Total Goals: ___________ Total Clients: _________
Total Goals Achieved: _______
Total Goals Partially Achieved: ________
Total Goals Not Achieved: _______
Total Goals Withdrawn: _______
% Achieved: _________
(Total goals achieved/(Total goals-Goals withdrawn) x 100

APPENDIX 5 – Client Goal Attainment Raw Data
Sub-goals are listed from most to least frequently reported (see last column)

Goal Sub-Area	Achieved	Partially Achieved	Not Achieved	Sub-Goal Ranking % of Total
Leisure Activities	70%	19%	11%	7%
Employment	36%	11%	8%	7%
Physical	81%	13%	5%	6%
Other Functional	70%	20%	10%	5%
Relationships w/others	59%	29%	12%	5%
Memory	54%	42%	4%	5%
Understanding ABI	81%	15%	4%	4%
Navigating the Medical System	90%	8%	1%	4%
Mood Mgt	57%	25%	18%	4%
Education	63%	28%	20%	4%
Transportation	76%	10%	14%	4%
Housing	78%	17%	5%	3%
Home Mgt	67%	21%	12%	3%
Community Involvement/groups	67%	21%	12%	3%
Time/Fatigue Mgt	78%	20%	2%	3%
Stress Mgt	62%	33%	5%	3%
Communication	59%	32%	5%	3%
Advocacy	62%	38%	13%	3%
Recovery Activities	38%	38%	23%	2%
Handling Money	54%	38%	8%	2%
Nutrition/Meal Prep	59%	38%	3%	2%
Behaviour Mgt	58%	36%	3%	2%
Navigating the Financial System	77%	19%	3%	2%
Attention	83%	21%	3%	2%
Dressing/Grooming/Hygiene	43%	57%	4%	2%
Volunteering	64%	11%	25%	2%
Crisis Intervention/Secondary Prevention	69%	12%	27%	2%
Anger Mgt	91%	14%	14%	2%
Pain Mgt	60%	30%	10%	1%
Eating Skills	80%	40%	13%	1%
Spirituality	67%	8%	25%	1%
Sexuality	45%	18%	36%	1%
Other Psycho-social	86%	14%	0%	1%
Other	0%	25%	75%	0%
Other community	100%	0%	0%	0%

APPENDIX 6 – Mayo-Portland Adaptability Inventory-4 (MPAI-4)

Muriel D. Lezak, PhD, ABPP & James F. Malec, PhD, ABPP

Below each item, circle the number that best describes the level at which the person being evaluated experiences problems. Mark the greatest level of problem that is appropriate. Problems that interfere rarely with daily or valued activities, that is, less than 5% of the time, should be considered not to interfere. Write comments about specific items at the end of the rating scale.

For Items 1-20, please use the rating scale below.

0 None	**1** Mild problem but does not interfere with activities; may use assistive device or medication	**2** Mild problem; interferes with activities 5-24% of the time	**3** Moderate problem; interferes with activities 25-75% of the time	**4** Severe problem; interferes with activities more than 75% of the time

Part A. Abilities

1. Mobility: Problems walking or moving; balance problems that interfere with moving about

0 1 2 3 4

2. Use of hands: Impaired strength or coordination in one or both hands

0 1 2 3 4

3. Vision: Problems seeing; double vision; eye, brain, or nerve injuries that interfere with seeing

0 1 2 3 4

4. *Audition: Problems hearing; ringing in the ears

0 1 2 3 4

5. Dizziness: Feeling unsteady, dizzy, light-headed

0 1 2 3 4

6. Motor speech: Abnormal clearness or rate of speech; stuttering

0 1 2 3 4

7A. Verbal communication: Problems expressing or understanding language

0 1 2 3 4

7B. Nonverbal communication: Restricted or unusual gestures or facial expressions; talking too much or not enough; missing nonverbal cues from others

0 1 2 3 4

8. Attention/Concentration: Problems ignoring distractions, shifting attention, keeping more than one thing in mind at a time

0 1 2 3 4

9. Memory: Problems learning and recalling new information

0 1 2 3 4

10. Fund of Information: Problems remembering information learned in school or on the job; difficulty remembering information about self and family from years ago

0 1 2 3 4

11. Novel problem-solving: Problems thinking up solutions or picking the best solution to new problems

0 1 2 3 4

12. Visuospatial abilities: Problems drawing, assembling things, route-finding, being visually aware on both the left and right sides

0 1 2 3 4

Part B. Adjustment

13. Anxiety: Tense, nervous, fearful, phobias, nightmares, flashbacks of stressful events

0 1 2 3 4

14. Depression: Sad, blue, hopeless, poor appetite, poor sleep, worry, self-criticism

0 1 2 3 4

15. Irritability, anger, aggression: Verbal or physical expressions of anger

0 1 2 3 4

16. *Pain and headache: Verbal and nonverbal expressions of pain; activities limited by pain

0 1 2 3 4

17. Fatigue: Feeling tired; lack of energy; tiring easily

0 1 2 3 4

18. Sensitivity to mild symptoms: Focusing on thinking, physical or emotional problems attributed to brain injury; rate only how concern or worry about these symptoms affects current functioning over and above the effects of the symptoms themselves

0 1 2 3 4

19. Inappropriate social interaction: Acting childish, silly, rude, behavior not fitting for time and place

0 1 2 3 4

20. Impaired self-awareness: Lack of recognition of personal limitations and disabilities and how they interfere with everyday activities and work or school

0 1 2 3 4

Use scale at the bottom of the page to rate item #21

21. Family/significant relationships: Interactions with close others; describe stress within the family or those closest to the person with brain injury; "family functioning" means cooperating to accomplish those tasks that need to be done to keep the household running

0 Normal stress within family or other close network of relationships	**1** Mild stress that does not interfere with family functioning	**2** Mild stress that interferes with family functioning 5-24% of the time	**3** Moderate stress that interferes with family functioning 25-75% of the time	**4** Severe stress that interferes with family functioning more than 75% of the time

Part C: Participation

22. Initiation: Problems getting started on activities without prompting				
0 None	**1** Mild problem but does not interfere with activities; may use assistive device or medication	**2** Mild problem; interferes with activities 5-24% of the time	**3** Moderate problem; interferes with activities 25-75% of the time	**4** Severe problem; interferes with activities more than 75% of the time
23. Social contact with friends, work associates, and other people who are not family, significant others, or professionals				
0 Normal involvement with others	**1** Mild difficulty in social situations but maintains normal involvement with others	**2** Mildly limited involvement with others (75-95% of normal interaction for age)	**3** Moderately limited involvement with others (25-74% of normal interaction for age)	**4** No or rare involvement with others (less than 25% of normal interaction for age)
24. Leisure and recreational activities				
0 Normal participation in leisure activities for age	**1** Mild difficulty in these activities but maintains normal participation	**2** Mildly limited participation (75-95% of normal participation for age)	**3** Moderately limited participation (25- 74% of normal participation for age)	**4** No or rare participation (less than 25% of normal participation for age)
25. Self-care: Eating, dressing, bathing, hygiene				
0 Independent completion of self-care activities	**1** Mild difficulty, occasional omissions or mildly slowed completion of self-care; may use assistive device or require occasional prompting	**2** Requires a little assistance or supervision from others (5-24% of the time) including frequent prompting	**3** Requires moderate assistance or supervision from others (25-75% of the time)	**4** Requires extensive assistance or supervision from others (more than75% of the time)
26. Residence: Responsibilities of independent living and homemaking (such as, meal preparation, home repairs and maintenance, personal health maintenance beyond basic hygiene including medication management) but not including managing money (see #29)				
0 Independent; living without supervision or concern from others	**1** Living without supervision but others have concerns about safety or managing responsibilities	**2** Requires a little assistance or supervision from others (5-24% of the time)	**3** Requires moderate assistance or supervision from others (25-75% of the time)	**4** Requires extensive assistance or supervision from others (more than 75% of the time)
27. *Transportation				
0 Independent in all modes of transportation including independent ability to operate a personal motor vehicle	**1** Independent in all modes of transportation, but others have concerns about safety	**2** Requires a little assistance or supervision from others (5-24% of the time); cannot drive	**3** Requires moderate assistance or supervision from others (25-75% of the time); cannot drive	**4** Requires extensive assistance or supervision from others (more than 75% of the time); cannot drive
28A. *Paid Employment: Rate either item 28A or 28B to reflect the primary desired social role. Do not rate both. Rate 28A if the primary social role is paid employment. If another social role is primary, rate only 28B. For both 28A and 28B, “support” means special help from another person with responsibilities (such as, a job coach or shadow, tutor, helper) or reduced responsibilities. Modifications to the physical environment that facilitate employment are not considered as support.				
0 Full-time (more than 30 hrs/wk) without support	**1** Part-time (3 to 30 hrs/ wk) without support	**2** Full-time or part-time with support	**3** Sheltered work	**4** Unemployed; employed less than 3 hours per week
28B. *Other employment: Involved in constructive, role-appropriate activity other than paid employment. Check only one to indicate primary desired social role: Childrearing/care-giving Homemaker, no childrearing or care-giving Student, Volunteer, Retired (Check retired only if over age 60; if unemployed, retired as disabled and under age 60, indicate “Unemployed” for item 28A.)				

0 Full-time (more than 30 hrs/wk) without support; full-time course load for students	**1** Part-time (3 to 30 hrs/ wk) without support	**2** Full-time or part-time with support	**3** Activities in a Supervised environment other than a sheltered workshop	**4** Inactive; involved in role appropriate activities less than 3 hours per week

29. Managing money and finances: Shopping, keeping a check book or other bank account, managing personal income and investments; if independent with small purchases but not able to manage larger personal finances or investments, rate 3 or 4.

0 Independent, manages small purchases and personal finances without supervision or concern from others	**1** Manages money independently but others have concerns about larger financial decisions	**2** Requires a little help or supervision (5-24% of the time) with large finances; independent with small purchases	**3** Requires moderate help or supervision (25-75% of the time) with large finances; some help with small purchases	**4** Requires extensive help or supervision (more than 75% of the time) with large finances; frequent help with small purchases.

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Part D: Pre-existing and associated conditions. The items below do not contribute to the total score but are used to identify special needs and circumstances. For each rate, pre-injury and post-injury status.

30. Alcohol use: Use of alcoholic beverages.

Pre-injury _____ Post-injury _____

0 No or socially acceptable use	**1** Occasionally exceeds socially acceptable use but does not interfere with everyday functioning; current problem under treatment or in remission	**2** Frequent excessive use that occasionally interferes with everyday functioning; possible dependence	**3** Use or dependence interferes with everyday functioning; additional treatment recommended	**4** Inpatient or residential treatment required

31. Drug use: Use of illegal drugs or abuse of prescription drugs.

Pre-injury _____ Post-injury _____

0 No or occasional use	**1** Occasional use does not interfere with everyday functioning; current problem under treatment or in remission	**2** Frequent use that occasionally interferes with everyday functioning; possible dependence	**3** Use or dependence interferes with everyday functioning; additional treatment recommended	**4** Inpatient or residential treatment required

32. Psychotic Symptoms: Hallucinations, delusions, other persistent severely distorted perceptions of reality.

Pre-injury _____ Post-injury _____

0 None	**1** Current problem under treatment or in remission; symptoms do not interfere with everyday functioning	**2** Symptoms occasionally interfere with everyday functioning but no additional evaluation or treatment recommended	**3** Symptoms interfere with everyday functioning; additional treatment recommended	**4** Inpatient or residential treatment required

33. Law violations: History before and after injury.

Pre-injury _____ Post-injury _____

0 None or minor traffic violations only	**1** Conviction on one or two misdemeanors other than minor traffic violations	**2** History of more than two misdemeanors other than minor traffic violations	**3** Single felony conviction	**4** Repeat felony convictions

34. Other condition causing physical impairment: Physical disability due to medical conditions other than brain injury, such as, spinal cord injury, amputation. Use scale below #35.

Pre-injury _____ Post-injury _____

35. Other condition causing cognitive impairment: Cognitive disability due to non-psychiatric medical conditions other than brain injury, such as, dementia, developmental disability.

Pre-injury _____ Post-injury _____

0 None	**1** Mild problem but does not interfere with activities; may use assistive device or medication	**2** Mild problem; interferes with activities 5-24% of the time	**3** Moderate problem; interferes with activities 25-75% of the time	**4** Severe problem; interferes with activities more than 75% of the time

Comments:
Item #

____

____

____

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Mayo Portland Adaptability Inventory- 4: Demographic Information

Client Health Service Number (HSN): ____

Ethnicity: ☐ Metis ☐ Non Aboriginal ☐ Non Status ☐ Status Indian ☐ Unknown ☐ Inuit

Gender: ☐ female ☐ male

Cause of Injury:
- ☐ Aneurysm
- ☐ Anoxia
- ☐ Bicycle
- ☐ Blow to head (assault)
- ☐ Blow to head (diving)
- ☐ Blow to head (not assault)
- ☐ Blow to head (sports related)
- ☐ Encephalitis/Meningitis
- ☐ Fall
- ☐ Motorcycle (driver)
- ☐ Motorcycle (passenger)
- ☐ MVC (bicycle)
- ☐ MVC (driver or passenger)
- ☐ MVC (pedestrian)
- ☐ Other (not TBI specify ____________)
- ☐ Penetrating (missile wound)
- ☐ Shaken Baby Syndrome
- ☐ Stroke
- ☐ Snowmobile
- ☐ Traumatic Brain Injury (other)
- ☐ Tumour

Age at time of Injury: ____________________ **Years since injury:** __________________________

Living Situation:
- ☐ Approved Home
- ☐ Correctional Centre
- ☐ No Fixed Address
- ☐ Child no extra support
- ☐ Child extra support
- ☐ Group Home
- ☐ Hospital Resident
- ☐ Independent in home or family home
- ☐ Independent with difficulty
- ☐ Long Term Care Facility
- ☐ Personal Care Home
- ☐ Supported with limited assistance
- ☐ Supported requiring assistance
- ☐ Supervised in home or family home

Insurance: ☐ No Insurance ☐ Other ☐ SGI No Fault ☐ SGI Tort (2003) ☐ SGI Tort (pre-1995) ☐ WCB

Current Employment:
- ☐ Currently Medically Restricted
- ☐ Full time Competitive
- ☐ Homemaker
- ☐ Not Applicable
- ☐ Part time Competitive
- ☐ Retired
- ☐ Seasonal Employment
- ☐ Self Employed
- ☐ Sheltered
- ☐ Student
- ☐ Supported
- ☐ Transitional
- ☐ Unemployable
- ☐ Unemployed
- ☐ Volunteer Work

Education Level:
(Highest Level)
- ☐ Elementary School
- ☐ None
- ☐ Post-Secondary School
- ☐ Preschool/Kindergarten
- ☐ Secondary School

Home Health Region:
- ☐ Athabasca
- ☐ Cypress
- ☐ Five Hills
- ☐ Heartland
- ☐ Kelsey Trail
- ☐ Keewatin Yatthé
- ☐ Mamawetan
- ☐ Prairie North
- ☐ Prince Albert Parkland
- ☐ Regina Qu'Appelle
- ☐ Saskatoon
- ☐ Sun Country
- ☐ Sunrise
- ☐ None

APPENDIX 7 – Analysis of the Mayo-Portland Adaptability Inventory-4 (MPAI-4)

Table 25: MPAI-4 Subscale and Total Score t-tests for Survivor, Significant Other, and Staff Rated Inventories

Sub-Scale	Time 1 Mean (SD)	Time 2 Mean (SD)	t-test
Survivor – Ability	13	11	$t(119) = 2.6; p = .01$*
Staff – Ability	14	12	$t(170) = 4.8; p < .01^{+}$
Significant Other - Ability	16	12	$t(75) = 3.9; p < .01^{+}$
Survivor – Adjustment	14	12	$t(117) = 2.1; p < .05$*
Staff – Adjustment	17	14	$t(169) = 5.8; p < .01^{+}$
Significant Other – Adjustment	16	14	$t(75) = 2.5; p < .05$*
Survivor – Participation	11	9	$t(118) = 4.1; p < .01^{+}$
Staff – Participation	14	11	$t(170) = 6.1; p < .01^{+}$
Significant Other – Participation	13	10	$t(75) = 3.5; p < .01^{+}$
Survivor – Total	33	28	$t(117) = 3.5; p < .01^{+}$
Staff – Total	40	32	$t(169) = 7.7; p < .01^{+}$
Significant Other – Total	40	32	$t(75) = 3.8; p < .01^{+}$

* There is less than a 5% chance that the observed difference between the average score on the subscale/total score at time 1 and the average score at time 2 was due to coincidence.
$^{+}$ There is less than a 1% chance that the observed difference between the average score on the subscale/total score at time 1 and the average score at time 2 was due to coincidence.

Table 26: Item by Item t-tests for the MPAI-4 (Items that did not show statistically significant improvement are listed in bold red font)

Inventory Item	Rater	Time 1	Time 2	Change Score Time 2 minus Time 1	T-Test
1. Mobility	Survivor	1.4	1	-0.4	t(120) = 2.7; p < .01
	Significant Other	1.4	0.9	-0.5	t(173) = 2.4; p < .05
	Staff	1.6	1.2	-0.4	t(168) = 4.5; p < .01
2. Use of hands	Survivor	1.2	0.9	-0.3	t(120) =2.6x; p < .01
	Significant Other	1.5	1	-0.5	t(73) = 3.5; p < .01
	Staff	1.4	1.1	-0.3	t(169) = 4.8; p < .01
3. Vision	Survivor	1	0.9	-0.1	t(119) = 1.6; p < .01
	Significant Other	1.2	0.7	-0.5	t(73) = 4.2; p < .01
	Staff	1	0.8	-0.2	t(167) = 3.6; p < .01
4. *Audition	**Survivor**	**0.7**	**0.6**	**-0.1**	**t(117) = 1.0; p = .3**
	Significant Other	**0.7**	**0.7**	**0**	**t(74) = 1.4; p = .2**
	Staff	**0.5**	**0.4**	**-0.1**	**t(168) = 0.8; p = .4**
5. Dizziness	Survivor	0.9	0.7	-0.2	t(118) = 2.0; p < .05
	Significant Other	1.1	0.7	-0.4	t(74) = 2.9; p < .01
	Staff	0.8	0.6	-0.2	t(167) = 3.5; p < .01
6. Motor speech	Survivor	0.8	0.6	-0.2	t(117) = 2.4; p < .05
	Significant Other	1.1	0.7	-0.4	t(73) = 2.3; p < .05
	Staff	0.8	0.7	-0.1	t(168) = 2.3; p < .05
7A. Verbal communication	**Survivor**	**0.9**	**0.7**	**-0.2**	**t(118) = 1.8; p = .08**
	Significant Other	1.3	1.1	-0.2	t(74) = 0.8; p < .05
	Staff	0.9	0.8	-0.1	t(167) = 2.2; p < .05
7B. Nonverbal communication	**Survivor**	**0.7**	**0.7**	**0**	**t(117) = -0.4; p = .7**
	Significant Other	**1.1**	**1.2**	**0.1**	**t(73) = -0.6; p = .5**
	Staff	0.9	0.8	-0.1	t(169) = 2.2; p < .05
8. Attention/ Concentration	**Survivor**	**1.4**	**1.3**	**-0.1**	**t(119) = -0.33; p = .7**
	Significant Other	**1.6**	**1.6**	**0**	**t(74) = 0.0; p = 1.0**
	Staff	1.5	1.2	-0.3	t(170) = 3.16; p < .01
9. Memory	**Survivor**	**1.5**	**1.6**	**0.1**	**t(119) = 0.1; p = .9**

	Significant Other	**1.8**	**1.6**	**-0.2**	**t(74) = 1.6; p = .12**
	Staff	1.8	1.5	-0.3	t(165) = 3.4; p < .01
10. Fund of Information: Problems remembering information learned	**Survivor**	**1**	**0.9**	**-0.1**	**t(120) = 1.6; p = .1**
	Significant Other	1.2	0.9	-0.3	t(75) = 2.7; p < .01
	Staff	0.9	0.8	-0.1	t(168) = 2.1; p < .05
11. Novel problem-solving	**Survivor**	**1.2**	**1.1**	**-0.1**	**t(118) = 0.9; p = .4**
	Significant Other	1.5	1.1	-0.4	t(74) = 2.0; p < .05
	Staff	1.6	1.4	-0.2	t(168) = 2.6; p = .01
12. Visuospatial abilities	**Survivor**	**1**	**0.9**	**-0.1**	**t(120) = 1.9; p = .06**
	Significant Other	1.4	1	-0.4	t(74) = 2.7; p < .01
	Staff	1.2	1	-0.2	t(166) = 2.1; p < .05
13. Anxiety	**Survivor**	**1.2**	**1.1**	**-0.1**	**t(118) = 1.0; p = .3**
	Significant Other	1.2	1	-0.2	t(75) = 2.4; p < .05
	Staff	1.4	1.1	-0.3	t(168) = 4.2; p < .01
14. Depression	**Survivor**	**1.3**	**1.2**	**-0.1**	**t(116) = 0.2; p = .8**
	Significant Other	1.4	1.2	-0.2	t(74) = 2.0; p = .05
	Staff	1.4	1.2	-0.2	t(168) = 2.4; p < .05
15. Irritability, anger, aggression	**Survivor**	**1**	**0.9**	**-0.1**	**t(119) = -0.3; p = .8**
	Significant Other	**0.9**	**1.1**	**0.2**	**t(75) = -1.1; p = .3**
	Staff	1	0.9	-0.1	t(165) = 2.4; p < .05
16. *Pain and headache	**Survivor**	**1.1**	**1**	**-0.1**	**t(119) = 1.7; p = .09**
	Significant Other	**1**	**0.9**	**-0.1**	**t(75) = 0.9; p = .4**
	Staff	1.2	0.9	-0.3	t(166) = 2.2; p < .05
17. Fatigue	Survivor	1.8	1.6	-0.2	t(119) = 2.1; p < .05
	Significant Other	**2**	**1.8**	**-0.2**	**t(75) = 1.6; p = .1**
	Staff	2.1	1.6	-0.5	t(168) = 5.1; p < .01
18. Sensitivity to mild symptoms	Survivor	1.3	1.1	-0.2	t(116) = 2.3; p < .05
	Significant Other	1.5	1.2	-0.3	t(75) = 2.7; p = .01
	Staff	1.2	0.9	-0.3	t(167) = 3.7; p < .01

19. Inappropriate social interaction	**Survivor**	**0.4**	**0.3**	**-0.1**	**t(120) = 0.4; p = .7**
	Significant Other	**0.7**	**0.7**	**0**	**t(75) = -0.3; p < .8**
	Staff	**0.6**	**1**	**0.4**	**t(167) = 0.5; p < .6**
20. Impaired self-awareness	**Survivor**	**0.7**	**0.7**	**0**	**t(119) = -1.1; p < .3**
	Significant Other	**1.1**	**1**	**-0.1**	**t(75) = 1.7; p < .1**
	Staff	1.2	1	-0.2	t(167) = 4.0; p < .01
21. Family/significant relationships	**Survivor**	**1.2**	**1.1**	**-0.1**	**t(115) = 1.4; p < .17**
	Significant Other	1.7	1.2	-0.5	t(72) = 2.6; p = .01
	Staff	1.8	1.4	-0.4	t(166) = 4.4; p < .01
22. Initiation	**Survivor**	**1.1**	**1**	**-0.1**	**t(115) = 1.0; p = .3**
	Significant Other	**1.5**	**1.3**	**-0.2**	**t(74) = 1.5; p = .1**
	Staff	1.4	1.2	-0.2	t(167) = 2.1; p < .05
23. Social contact with friends, work associates & other people (not family)	**Survivor**	**1.3**	**1.1**	**-0.2**	**t(118) = 0.9; p = .4**
	Significant Other	**1.4**	**1.3**	**-0.1**	**t(75) = 1.0; p = .3**
	Staff	1.9	1.5	-0.4	t(168) = 4.4; p < .01
24. Leisure and recreational activities	Survivor	1.7	1.3	-0.4	t(117) = 3.5; p < .01
	Significant Other	1.9	1.4	-0.5	t(73) = 2.1; p < .05
	Staff	2.3	1.8	-0.5	t(168) = 6.3; p < .01
25. Self-care	**Survivor**	**0.6**	**0.4**	**-0.2**	**t(117) = 1.2; p = .2**
	Significant Other	**0.9**	**0.6**	**-0.3**	**t(75) = 1.6; p = .1**
	Staff	0.9	0.7	-0.2	t(168) = 3.4; p < .01
26. Residence	Survivor	1.4	1	-0.4	t(118) = 4.5; p < .01
	Significant Other	1.8	1.3	-0.5	t(74) = 3.1; p < .01
	Staff	1.9	1.4	-0.5	t(167) = 6.4; p < .01
27. *Transportation	Survivor	2	1.3	-0.7	t(115) = 4.0; p < .01
	Significant Other	2.4	1.5	-0.9	t(74) = 4.6; p < .01
	Staff	2.4	1.6	-0.8	t(167) = 6.8; p < .01
28A. *Paid Employment	Survivor	3	2.2	-0.8	t(67) = 2.0; p < .05
	Significant Other	3.1	2.3	-0.8	t(50) = 2.3; p < .05
	Staff	3.2	2.3	-0.9	t(97) = 3.6; p < .01

28B. *Other employment	**Survivor**	**2.8**	**2.4**	**-0.4**	**t(26) = 1.5; p = .15**
	Significant Other	2.8	2.4	-0.4	t(13) = 2.2; p < .05
	Staff	2.8	2.3	-0.5	t(45) = 2.5; p < .05
29. Managing money and finances	Survivor	1.3	1.1	-0.2	t(118) = 2.6; p = .01
	Significant Other	**1.7**	**1.4**	**-0.3**	**t(75) = 1.7; p = .1**
	Staff	1.7	1.4	-0.3	t(166) = 2.7; p < .01

APPENDIX 8 – Acronyms used in this Report

ABI	Acquired Brain Injury
ABIIS	Acquired Brain Injury Information System
CFPC	Canadian Falls Prevention Curriculum
CFPEC	Canadian Falls Prevention Education Collaborative
FTE	Full-Time Equivalent
ILWP	Independent Living Worker Program
MPAI-4	Mayo-Portland Adaptability Inventory - 4th edition
MVC	Motor Vehicle Collision
MVC (ALL)	All types of Motor Vehicle Collisions
PARTY	Prevent Alcohol and Risk Related Trauma in Youth
SGI	Saskatchewan Government Insurance
SLP	Speech Language Pathologist
TBI	Traumatic Brain Injury

PROGRAMS

LABIS	Lloydminster & Area Brain Injury Society
SARBI	Saskatchewan Association for the Rehabilitation of the Brain Injured
SBIA	Saskatchewan Brain Injury Association
SIGN	Society for the Involvement of Good Neighbours
SMILE	Society for Maintaining and Improving Life in Estevan
SPI	Saskatchewan Prevention Institute