

**Youth Residential Solvent Treatment Program Design:
An Examination of the Role of Program Length and Length of Client Stay**

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INTRODUCTION

The inhalation of psychoactive solvents such as glue, gasoline and lysol can provide the user with an instant rush of euphoria and other effects that some users find rewarding (e.g., loss of inhibition, altered sense of reality, hallucinations). However, the solvent user risks several debilitating effects such as loss of motor skills, seizures, diarrhea, abdominal pain, anxiety, irritability and even death from a single use. Chronic inhalation can be addictive and may result in damage to internal organs, peripheral nerves and failure of the liver and kidneys. Chronic users experience a range of mental health problems, from mild impairment to severe dementia. They also tend to have social and emotional problems, including violent behaviors and depression. Physical and sexual abuse (often involving family members) is also common among solvent abusers as are other forms of substance abuse.

The use and abuse of solvents by youth is an international concern, with rates varying widely. Among 40 countries reporting lifetime use prevalence data during the 1990s, 16 reported rates of less than 5%, 15 reported rates of between 5% and 10%, while 10 reported rates between 10% and 20%. Rates in poorer communities and among Aboriginal people are reported to be much higher. For example, in Sao Paulo, Brazil, nearly 24% of 9-18 year olds living in poverty had tried inhalants. In Africa, inhalants and cannabis appear to be the most commonly used illicit substances by youth. Studies of First Nations communities in the United States and Canada have shown that, in some communities, up to 60% of youth report use of inhalants. Inhalants are also a serious concern among Aboriginal people in Australia (Roberts, in press).

National and local responses to solvent abuse are wide-ranging, but in general have centred on community interventions, youth and retailer education and treatment for chronic users. In Canada, one major national response to solvent abuse among First Nations youth has been the establishment of nine residential solvent abuse treatment centres (see Appendix A). Three of the centres were established in 1996 under the federally funded National Native Youth Substance Abuse Program (NNYSA) through a partnership between First Nations people and Health Canada¹. The nine centres are linked through the Youth Solvent Abuse Committee (YSAC) network involving program directors, NNYSA representatives and various field experts. The network's mission is to provide culturally appropriate treatment and community intervention programming for First Nations youth who abuse solvents and their families.

The nine treatment programs designed by YSAC have approximately 112 treatment beds for First Nations youth aged 12 to 26. Programs vary by structure, from co-ed to gender based, and from continuous to block intake. Initially, all programs were to be of six months duration. However, some directors and treatment staff have found this to be too

¹ The NNYSA program works in partnership with the National Native Alcohol and Drug Abuse Program (NNADAP), whose goal is to support First Nations and Inuit people and their communities in establishing and operating programs aimed at arresting and off-setting high levels of alcohol, drug and solvent abuse among their target populations living on-reserve.

long. Drop-out rates had been quite high and some families object to their children being away from home for extended periods of time. Three centres have therefore been pilot testing four-month programs and YSAC is seeking additional empirical support for alternatives to the six-month model.

To assist YSAC in assessing the potential implications of moving to a four-month program this report outlines:

- what others are doing in the field in terms of program length and length of client stay in a program
- general program design, focussing on alternatives to the six-month design (including where possible how a program operates and is evaluated);
- potential negative consequences for youth and facilities associated with programs of different lengths; and
- recommendations for implementing alternatives to the six-month model.

Any lessons from the pilot studies of the four-month programs implemented at three of the YSAC centres will also be summarized.

STRUCTURE OF THE REPORT

This report is comprised of six key sections and is structured as follows:

Section I General Issues Pertaining to Residential Programs for People with Substance Abuse Problems

This section outlines general issues pertaining to residential programs for people with substance abuse problems. This shows how the issues of concern in the present instance reflect other, more general concerns about residential treatment for substance abuse.

Section II Literature Review

An in-depth review of national and international literature was conducted to identify reports and publications concerning residential treatment for Aboriginal youth solvent abusers. The principle interests were: (1) program length and related assumptions, (2) length of client stay and factors contributing to early drop out, and (3) possible negative consequences for youth and program staff associated with programs of different lengths. However, as expected, and because solvent abuse treatment has not been extensively researched, very few directly relevant reports or publications were found. The search was consequently broadened to include residential treatment for Aboriginal and other youth with other types of substance use problems. Efforts were also made to find reports of studies that concerned program length and client length of stay in residential programs for youth with other problems (e.g., mental health). Some reference to the literature on residential programs for adults is also made but the primary focus is youth. Peer reviewed research and the gray literature, such as government publications and treatment centre reports, were searched². The search terms and sources are indicated in Appendix B.

Section III Identification of Youth Treatment Centres

One of the initial aims of this report was to identify up to ten residential treatment programs with considerable experience in youth addictions treatment (preferably solvent abuse) for possible visit by YSAC treatment centre directors. The intent was also to develop questions for the directors to guide their discussions. However, site visits are no longer planned by YSAC, and so in place this report provides a descriptive summary of treatment programs identified through Web searchers and a search of a database of Canadian treatment centers maintained by the Canadian Centre on Substance Abuse.

² The databases searched for this project were: CORK, ETOH, CCSADOCS, IDA, Ingenta, PsycINFO, Social Sciences FT, Social Services Abstracts, Social Work Abstracts, Sociological Abstracts and Web of Science.

Section IV Survey of Attendees at an International Conference on Inhalant Use and Disorder

A nine-question survey was constructed on treatment program length and length of client stay for distribution to the approximate 200 planned attendees at the July, 2003 Australian Institute of Criminology Inhalant Use and Disorder Conference. The results will be summarized in a separate report

Section V Interviews with Key Stakeholders and Experts

Attempts were made to contact and conduct telephone interviews with all YSAC directors and regional Health Canada consultants and a number of others who were considered to have expertise in this area. Details are provided in the results section.

Section VI Conclusions and Recommendations

Some general conclusions about residential treatment of youth solvent abusers are proposed for YSAC's consideration. However, due to the limited research in this area, these conclusions must be considered tentative. They concern program length, length of client stay in a program, various aspects of program design and operations, program evaluation, potential negative consequences for youth and facilities associated with programs of different lengths, and lessons from the pilot studies of four-month programs implemented at three of the YSAC centres.

The main recommendations concern the need for YSAC to continue to experiment with programs of different length but also to ensure the collection of appropriate evaluative data. Outcome evaluations of YSAC programs are also recommended.

SECTION I

GENERAL ISSUES PERTAINING TO RESIDENTIAL PROGRAMS FOR PEOPLE WITH SUBSTANCE ABUSE PROBLEMS

Residential programs for people with substance abuse problems have a long history in Canada. Several were established in the nineteenth century and many more were opened after WWII and during a period of expansion of substance use treatment services that began in the 1970's.

Initially, residential programs tended to serve a more affluent population that could pay for treatment, and some programs were clearly intended to be profitable from a business perspective. This business orientation still characterizes some residential programs in the United States. However, in Canada most residential programs are, at least partly, government funded on the assumption that they are especially helpful for some types of people with substance abuse problems. Regional residential programs are seen as cost-effective for the delivery of services to people who live in small or rural communities where local, non-residential services are not available and would be expensive to establish. This may be especially true for programs that serve First Nations people living on reserves.

Apart from their value as regional treatment resources, the main arguments in favor of residential programs are:

- They are an efficient way of serving clients with special needs (e.g., young solvent abusers).
- They provide a period of respite to family members.
- They provide alcohol/drug free environments and thus reduce the risk of relapse during the first phases of the recovery process.
- They remove the user from the social and environmental cues and stresses associated with alcohol/drug use and thus allow him/her time to focus on recovery issues.
- They provide a social milieu that can reinforce attitudes and behaviours conducive to recovery.
- They provide more intensive services than would be available on an outpatient or day program basis.
- Residents can form support groups or networks that continue post-discharge.
- Staff serve as positive role models (especially staff who have had substance abuse problems).

It is also contended by some that the rituals and ceremonies associated with residential treatment have powerful and positive placebo effects. Thus the admission and discharge procedures, graduation ceremonies and daily routines can contribute to a sense of the importance and potency of the treatment process. This in itself can reinforce motivations for change or even 'convert' some clients to recovery. These effects may be particularly strong for programs with religious or spiritual orientations.

Critics of residential programs discount these benefits and argue that recovery must begin and continue in the environments where people live and work. They point out that removing people from these environments denies them the opportunity to acquire and practice new skills and to work to change environmental factors that contribute to continued substance abuse or relapse. Critics of residential programs are especially concerned that they do not always fully engage families in the recovery process. Concerns that residential programs can provide opportunities to acquire or strengthen deviant skills and relationships have also been expressed. Finally, there is concern that some clients of long-term residential programs could experience significant 're-entry' problems when returning to their home communities. These problems could be especially significant for young people who lose contact with peers and families during residential treatment and those whose peers or families do not understand or support any changes that treatment or maturation may bring about.

Evidence for the effectiveness of residential treatment programs is mixed, and more research is needed. Many programs have not been evaluated using scientific methods and questions concerning program length and optimum periods of residence have not been systematically addressed. Expert opinion is divided in both instances. It is, however, hoped that a review of what is known and a sampling of expert opinion in this report will be of value to YSAC.

There is some consensus among experienced clinicians and treatment system planners that residential programs should mainly serve those with more serious problems who have not benefited from previous, less intensive interventions. This is reflected in guidelines developed by the Ontario Substance Abuse Bureau (further details available on a CD that can be provided upon request). Some of the proposed criteria for admission to residential treatment are reasonably objective but others require clinical judgment. They include:

- Not assessed as needing a period of supportive stabilization.
- Not openly hostile or threatening harm to themselves or others.
- Not under medical/psychiatric care for any mental health problems serious enough to interfere with addiction treatment.
- Not assessed as currently needing residential support services due to social instability, lack of ongoing social support and related problems.
- Is committed to a negotiated treatment plan and actively working on goals for change.
- Not assessed as likely to benefit from treatment in the community due to current circumstances, severity of problems and related issues.
- Not likely to be violent or abusive or have obligations that would make it difficult to fully participate in residential treatment.

The guidelines also indicate criteria for discharge from residential treatment:

- Has sufficiently resolved medical/psychiatric problems and can manage without 24 hour structured peer/environmental/staff support.
- Has developed sufficient coping skills to manage without 24-hour support.
- Is actively working on short-term and long-term treatment goals and can manage with less intensive contact.
- Is able to use strategies to prevent relapse without 24-hour support.
- Has a supportive recovery environment in place.
- Has access to appropriate resources to maintain change.

Clients that do not meet all of these criteria are recommended to continue in treatment or to be reassessed for other types of programs and services.

SECTION II

LITERATURE REVIEW

1. Residential Treatment Programs for Youth Who Abuse Solvents

There is a quantity of literature on the epidemiology, causes and prevention of solvent abuse among First Nations people (Torrie 1990), but very little on treatment and even less on residential treatment. Further, much of the treatment literature is descriptive and reflects professional opinion, and is not necessarily supported with empirical evidence.

As noted in the previous section, there is some consensus among clinicians and researchers that residential treatment can be helpful for individuals who have special needs or require intensive programming (e.g., chronic solvent abusers). For example, Jumper-Thurman and Beauvais (1997:1884) suggest that treatment for solvent abusers should “be long-term with an extended period of detoxification previous to intervention”, noting that “...solvent abusers...have a greater breadth and depth of problems”. However, some research also suggests that residential treatment programs for inhalant abuse rarely survive for a multitude of reasons, including the degree of difficulty that treating solvent users entails (Beauvais 1990). The NNYSA programs seem to be exceptions in this regard.

The website of the US based National Inhalant Prevention Coalition (www.inhalents.org) includes guidelines for inhalant abuse treatment developed by internationally recognized experts on substance abuse among First Nations people. These are included in Appendix C. Although these guidelines imply that treatment could be provided on a residential basis, no specific statement is made about the duration of residence. Treatment is noted though to likely take “many months” and to involve intensive aftercare to “rebuild life skills and re-integrate the client with the school, family and community networks” (NIPC Guidelines: 5).

The 1993 First Nations and Inuit Community Youth Solvent Abuse Survey and Study (Kaweionnehta Human Resource Group) conducted a review of the literature on solvent abuse and its treatment, and recommended that solvent abusers require 6 to 12 months in residential treatment, including a community reintegration phase comprised of community based recovery and aftercare. It is important to note that no empirical studies that clearly favored long-term residential treatment over other types of treatment were identified. The literature does however indicate that treatment should allow clients 2–4 weeks to completely detoxify. The literature also suggests recovery from temporary, solvent-induced behavioral and cognitive impaired functioning can take quite some time, up to 6 months in some cases, and that intensive psychosocial treatment during this period may not be very effective (SAMHSA 2003; Riedel et al. 1995; Jumper-Thurman and Beauvais 1992). Some experts have even recommended treatment for up to two years (not necessarily exclusively residential) (Currie 2001:45; Jumper-Thurman and Beauvais 1992). And others caution that in many cases treatment may need to be long-term and

that incomplete mental and physical recovery or even permanent disabilities may result if treatment is delayed or interrupted.

Demonstrable improvements in cognitive functioning among solvent abusers have been shown in residential treatment (Riedel et al. 1995). However, data on the longer term effectiveness of residential programs for youth who abuse solvents is very limited and many experts feel that the effectiveness of residential programs is often compromised by a “lack of social and family support, being immersed too early in treatment programs and the reduced capacity of inhalant abusers to cooperate in treatment and recovery” (SAMHSA 2003). Reports from Davis Inlet, Labrador support that many of the children who were sent to residential treatment for solvent abuse relapsed when they returned home (<http://list.web.ca/archives/innu-1/2002-January/000069.htm>) and this may reflect the chronic problems that plague their community. Further, a small, uncontrolled study of former clients of the Our Home program for solvent abusers in South Dakota, USA found that only 34% of clients reported no inhalant use in the first six months after discharge (Riedel et al. 1995). The research of Divakaran-Brown and Minutjukur (1993) similarly reported that relapse after residential treatment was high for petrol sniffers.

The above mentioned treatment guidelines and other reports in the literature indicate the importance of aftercare and follow-up (Jumper-Thurman and Beauvais 1992; Texas Commission on Alcohol and Drug Abuse 1997; SAMHSA 2003) and suggest that this often needs to be long term and to involve multiple community resources..

Beauvais (1990) presents a model for prevention and treatment of drug abuse (including inhalants) among First Nations youth that emphasizes the need to overcome negative influences of peers and family members and to help youth understand that their behaviours are influenced by their friends. This is consistent with the work of Simpson and Barrett (1991) who found that peer relations proved to be the most important predictor of severity of drug use among inhalant users.

Beauvais identifies two alternatives for restructuring youth social relations to reduce drug use. The first is for a youth to remove him/herself from established peer groups to obtain treatment and to then find new peer relationships in the community. However, this can be difficult in small communities where “a youth moving from treatment back into the old peer cluster will be subjected to very powerful messages, both overt and subtle, that make continuing recovery nearly impossible (1990:105).” This is an important message for residential treatment programs in which the focus is exclusively on individuals, and as well indicates the need for such programs to be offered in the context of community development and prevention initiatives and to have community based aftercare and support components. A second approach is to try to change the attitudes, values and behaviours of an entire peer cluster by perhaps adapting the concepts of structured family therapy to treat peer groups.

However, a key assumption leading to the establishment the YSAC programs was that young solvent abusers needed a safe place for detoxification separate from their home

communities as it was evident in many cases that families were not always supportive and were often highly dysfunctional. A 'family' cannot be assumed for some young solvent abusers and this needs to be addressed as a part of the inhalant abuse problem (Torrie 1990:8).

Some potential drawbacks to extended periods of residential treatment for substance abuse in general were identified in the previous section. An additional significant concern for solvent abusers identified in the literature is the risk of the development of deviant peer clusters within the treatment environment (Jumper-Thurman and Beauvais 1992:208). Over time there is a risk that like-minded people will tend to coalesce and create peer clusters that can subvert treatment. For this and other reasons, some experts feel that children are best helped within their communities (Lehmann 1998: 18).

A detailed review of the wider literature on the treatment of solvent abuse and the literature on the treatment of substance abuse among First Nations people is beyond the scope of this report. However, this literature does draw attention to a number of issues that should be considered in the present context:

- Chronic solvent abuse is a serious problem and there are many challenges (e.g., physical and cognitive impairment) to successful treatment and relapse is common.
- Chronic solvent abusers have serious emotional and social problems that predate their use of solvents. These need to be addressed if treatment is to be successful.
- Chronic solvent abuse may require up to one month (and possibly longer) of complete physical detoxification.
- First Nations youth who abuse solvents often come from dysfunctional families where members have substance abuse and other problems.
- First Nations youth who abuse solvents often come from communities where there is a high prevalence of substance abuse and other problems affecting the community as a whole.

Also considered beyond the scope of the present report, but important to note, is that some innovative bush programs for First Nations youth have been developed and achieved some success. These include a wilderness camp in Northern Ontario³ (Torrie and Torrie 1992) and outstations in Australia (Lehmann 1998). In both cases one of the aims was to teach youth about traditional beliefs and practices. See Section III, (1) for a discussion of these programs.

³ No longer in operation.

1.1 Program Length

The general length of residential treatment in YSAC programs is six months followed by community support for up to two years. Residential treatment programs for solvent abusers identified for this project⁴ varied considerably in duration (28 days to 6 months and longer) and many provided aftercare for extended periods. The Our Home program located in South Dakota considered their extended and flexible length of stay (between 90 and 120 days) to be a distinctive feature of their program (Riedel et al. 1995). Further, Ranch Ehrlo for troubled youth, which accepts youth solvent abusers, is an 18-month program specializing in individual treatment and therapy (Kaweionnehta Human Resource Group 1993: 108).

As mentioned above, solvent abuse bush programs were also identified, and although not residential treatment, they too could range from 28 days to 12 months. The Dry Out Camp for Sniffers in South Australia was between 3-12 months and included short stays back in the community under strict supervision. Further, the 28-day wilderness camp for youth solvent abusers in northern Ontario reported that at the end youth relayed they would have liked to stay longer (Torri 1990: 6).

A common feature among many of the programs identified was an ‘open entry and open exit’ system that allows for individual treatment planning (Prinz 2000; Kaweionnehta Human Resource Group 1993). For example, the Woods Home Treatment Centre program, which was located in Calgary, Alberta, “varie[d] in length according to the unique needs of the individual youth and family, and the specific treatment service assessed” (Kaweionnehta Human Resource Group 1993: 109).

1.2 Length of Stay and Associated Factors

Attrition is a common problem among all forms of substance abuse treatment programs, including those directed at solvent abuse (Evenson et al. 1998; Schicht et al. 1994; Craig 1985). Riedel et al. (1995) reported that the average length of stay in South Dakota’s Our Home program was 90 days and that a common barrier to retention was parents’ withdrawing of voluntary placements. This often occurred after a client disclosed a history of physical or sexual abuse (usually inflicted by a family member). Such disclosures were very common, with up to 60% of clients reporting pre-treatment physical abuse and 52% reporting a history of sexual abuse. In examination of a federally established inhalant abuse program in Canada, Coleman et al. (2001) found that relapse was greatest for young people who abused inhalants immediately before admission, were unmotivated in treatment and were hospitalized during treatment. Further research is clearly needed in this area.

⁴ Referring to both solvent abuse specific programs and programs that treat solvent abusers in addition to other clientele. There were few international solvent abuse treatment programs identified (see Section III).

2. Residential Treatment Programs For Youth Who Abuse Any Types of Substances

Several types of youth residential programs have been established in Canada and elsewhere, including some that are quite eclectic, some that are 12-step based and some with a strong religious orientation. In general, longer-term programs tend to offer a greater range of client services, including education and training. Family involvement is also generally encouraged.

The rationale for residential treatment for youth who abuse any types of substances, including solvents, is the same as those supporting residential programs for people with substance abuse problems in general (see Section I). Once again, the main arguments in favor of residential programming include: (1) detoxification in a protective, drug-free environment, (2) respite for families, (3) opportunity to focus on recovery issues free from distractions and temptations from family members and peers, (4) intense exposure to positive role models (staff and other youth in recovery), (5) efficient means to serve a special needs population, (6) provision of intensive services, (7) ability to form support groups that continue post-treatment, and (8) milieu therapy benefits. However, the past decade has generally witnessed a decreased emphasis on residential programs and an increased prominence of community-based services and family prevention. This has occurred in a wide range of areas, including substance abuse, adolescents with emotional difficulties, and dual diagnoses of substance abuse and psychiatric disorders (Spreat and Jampol 1997). The reasons for this are varied, ranging from restricted funding to the development of new treatments and research on the cost effectiveness of different types and mode of treatment.

As is the case for residential programs for youth who abuse solvents, the literature on residential programs for youth who abuse any types of substances is mainly descriptive and reflects expert opinion with limited empirical support. Few such programs have been scientifically evaluated and much of the evidence for program success is anecdotal or based on uncontrolled studies.

2.1 Program Length

Residential programs for youth vary in length from about 28 days to a year or more. Proponents of longer-term programs find support from adult studies that show a positive relationship between time in treatment and favourable outcomes (see Part 4 of this Section). Recently, Hopfer et al. (2002) concluded that the literature on youth treatment showed that length of time in treatment, regardless of modality, was the best predictor of outcome for youth who abuse heroin. Similarly, Martin (2002) found that adolescents who met or exceeded minimum lengths of treatment had better treatment outcomes than those who did not. However, as with adult studies, these results do not always mean that more treatment is necessarily better. This is because individuals who stay in treatment are

likely to be different from those who do not. Studies that control for client characteristics are needed to show the relative effectiveness of programs of different durations.

There is, however, some consensus that some period of residential treatment engagement is important in many cases. Van Meter and Rioux (1990:88) showed that a short-term youth residential treatment program (28 day) was as effective as longer-term treatment. They also identified three program components that significantly impacted the success of sort-term programs: supervised school-study periods, links with intensive aftercare, and program interaction with recovering adult clients.

Conversely, a review of best practices in treatment published by Health Canada (1999) includes the following summary of a key, pioneering study by Wilkinson and Martin (1983):

Wilkinson and Martin (1983) randomly assigned young multiple drug users (age 16-30) to either four to six weeks of residential treatment or a brief outpatient treatment consisting of three sessions spaced over a period of four weeks. Each treatment involved six aftercare sessions spaced geometrically over a 70-week period. All young multiple drug users presenting for treatment were eligible to participate in the study provided they were not psychotic, in need of psychoactive medication, or seriously cognitively impaired, and were willing to accept either inpatient or outpatient treatment. Clients were initially screened as to their willingness to accept outpatient, day treatment and residential treatment. Two-thirds of eligible subjects screened out on this criterion, 90% of whom did so because they were unwilling to accept inpatient treatment. At assessment, subjects reported use of a mean of six drug classes and a mean of two drug classes which were rated by the client as a problem. Overall, there was no difference between the groups on a composite measure of drug use at one and two-year follow-up.

2.2 *Length of Stay and Associated Factors*

Client retention is a common and important issue in residential treatment programs for youth who abuse substances. Drop out rates from residential therapeutic communities for adolescents reported by Weidman (1987) were as high as 67% in some conditions (mostly in the first month of treatment) and decreased to 30% in a program that utilized a family systems approach. A study by Spicer (1983) reported a 46% drop out rate among adolescents in a residential substance abuse treatment program, and Andersen and Berg (1997) reported a 50% drop out rate in the treatment program they studied. However, mode of discharge is not necessarily a good predictor of longer term outcomes (Godley et al. 2001).

A variety of factors contributing to program retention have been identified. Client specific variables that have been associated with retention of youth in residential treatment include: age (being older), previous admissions, education, type of

psychopathology, attention deficit-hyperactivity disorder (ADHD), involvement of family and/or friends, and lack of active coping skills (Adams and Wallace 1994; Weidman 1987; Spooner et al. 1996; Spicer, 1983). Schonberg (as cited in Spooner et al. 1996) also notes the importance of careful client/treatment matching. Further, Nelson and Leeka (1993) found that youth are most likely to complete residential treatment if they are enrolled in school at the time of admission, have fewer failing grades, are at a higher grade level, or were referred by probation or a non-school source. This is the only study that has considered the influence of referral source. Further, a study by Klein et al. (2002) concluded that “clients with many previous treatments and more drug-related problems had lower completion rates in out-patient settings, relative to clients with many problems treated in more intensive settings” (27). Studies have also concluded that predictors of length of stay in treatment vary by gender (Kohn et al. 2002; Novins et al. 1996). Novins et al. (1996) found in their review of a residential substance abuse treatment program for American Indian and Alaska Native adolescents that there are important gender differences that need to be accounted for, as well as similarities in terms of demographic traits.

Based on expert interviews, Currie (2001) identified several factors as contributing to client retention in treatment. They include: (1) providing detailed program information at assessment and intake, (2) matching client readiness with treatment objectives and methods (stages of change model), (3) program philosophy that includes acceptance of relapse and use of a harm reduction model, (4) a client-directed and flexible approach to treatment, and respectful and supportive staff, (5) family outreach and involvement, (6) a broad psycho-educational approach to program content, (7) recognition of the needs of specialized groups, and (8) a safe environment. For Aboriginal youth this included a safe and secure treatment environment, incorporation of traditional beliefs and practices and addressing spiritual needs, practices and beliefs.

Examining specifically the contribution of program components to client retention, on the basis of staff opinions, Miller (as cited in Spooner et al., 1996) proposed several likely to contribute to client retention: (1) high levels of support for client spontaneity, (2) support for client activity and growth and autonomy, (3) practical and personal problem-solving orientation, and (4) encouragement for the expression of feelings. A reasonable level of order and organization, program clarity and staff control (to ensure client safety) were also identified. A study by Kempf and Stanley (1996) showed tobacco policies seem to have had an influence on the drop out rates in that drop out rates were reduced after more liberal smoking policies were introduced.

Further, Margolis et al. (2000) interviewed 14 young adults (aged 19-35) about their experience before, during and after treatment. They had been in recovery for 2-16 yrs, and, on average, began treatment at 17 years of age. Length of stay in treatment, involvement with 12-step programs, psychotropic medication, family support, peer support, spirituality, and other factors were identified as helpful for long-term recovery. However, as indicated by the authors, this study did not meet the minimum standards for

research in that the sample was small and self selected. No firm conclusions can thus be drawn.

In a far more rigorous study involving a large sample of adolescents (n=2,317), Hsieh et al. (1998) found a significant positive relationship between length of stay in residence and treatment outcome at 6 months but not 12 months. The predictors of positive treatment outcome were post-treatment variables, including attendance at AA/NA, attendance at aftercare and parental involvement in ALANON/ALATEEN. They also concluded that continuing care after residential treatment, including attendance at a self-help support group and other forms of aftercare, is the most effective variable to produce positive treatment outcome (Hsieh 1998:486).

3. Residential Programs For Youth With Other Problems

There are a variety of residential programs for youth with mental health and behavioural problems. For the most part, these programs are for youth who need to be removed from situations where there may pose a risk to themselves or others, or from negative community and family situations (LeFager 1984). Unfortunately, there is little research directly relevant to this report.

3.1 Program Length

Program length appears to be highly variable and reflective of the nature and severity of the condition(s) being treated. In general, however, professionals seem to prefer that young people be treated in community settings.

3.2 Length of Stay and Associated Factors

For children and adolescents hospitalized for psychiatric disorders, experienced clinicians indicate that decisions about length of stay need to be informed by a variety of factors, including diagnosis, chronicity, severity of presenting symptoms, response to treatment and family resources. Pottick et al. (1999) found that the average stay of children in US inpatient facilities was over 2 months for children but only two and half weeks for adolescents. The most important determinants of length of stay were type of facility, age, insurance coverage, ethnicity, treatment history and diagnosis.

Barber et al. (1992) suggest that long-term hospitalization (8 months or more) might be needed in cases where there is a high degree of family conflict and psychopathology, physical and sexual abuse, divorce/separation or major loss. They also indicate that empirical studies of factors influencing length of stay of children and adolescents in psychiatric hospitals show that longer stays are associated with multiple diagnoses or aggressive conduct disorders, familial drug abuse, behavioural problems, prior hospitalization, childhood onset of psychiatric disorders, lower school grades,

development and poor family involvement during hospitalization. Browning (1986) concluded that age and ego development influenced length of stay of adolescents and young adults in psychiatric wards. Further, Sourander et al. (1998) examined hospital discharge register information on length of stay for children and adolescents in psychiatric hospitals in Finland. They found that the best predictors of staying over 60 days were previous hospital treatment, involuntary treatment and treatment in an adolescent unit. Girls and those under school age tended to have shorter stays. Conversely, Pavkov et al. (1997) concluded in their study of length of stay among youths hospitalized in psychiatric hospitals in Illinois that being female was associated with a decreased likelihood of discharge and older age was associated with an increased likelihood of discharge.

There is some evidence that high need youth benefit most from long-term residential care (Daly and Friman 1994; Lewis et al. 1980) (cited in Friman et al. 1996). According to Adinoff et al. (1999), “patients with very poor psychosocial support systems or marked psychiatric impairment appear to benefit from inpatient rehabilitation and/or extended residential care”. This was similarly concluded in a recent study of substance abusers with psychiatric and drug-related problems (McKay et al. 2002). Some also suggest that children who stay in residence for long periods are typically those who cannot be placed in the community due to family circumstances or the significance of their problems (Ogborne, personal communication, Toronto Children’s Mental Health Centre Director 2003). However, Beschner (1986) notes that after hospital or residential treatment, many youngsters find it difficult to retain their newly learned lifestyle upon return to their former peer group, family or school situation. As discussed in the prior section, this indicates the need for aftercare. And some express concern about the development of deviant subcultures among adolescents in residential programs for long periods (Ogborne, personal communication, Toronto Children’s Mental Health Centre Director 2003).

Both client and program factors need to be considered in residential program client retention. A review of habitual runaway and non-runaway male youth to a residential treatment facility indicated that runners were more likely to have a history of running away, a greater number of prior placements, a history of property crime offences, and a history of physical abuse perpetration and victimization (Abbey et al. 1997). Examining the influence of program variables on length of stay, Friman et al. (1996) found that length of stay in voluntary residential care programs for highly troublesome youth increased by an average of 950 days when youth to staff ratios were substantially reduced. They state: “[t]he central question in the study was whether reducing youth-to-staff ratios for highly troublesome youth in a moderately restrictive, voluntary placement would help maintain their placements and the results indicate they did” (Friman et al. 1996:345).

4. Residential Treatment Programs For Adults With Substance Abuse Problems

There is an extensive literature on the treatment of adults who abuse alcohol and other drugs and several reviews are readily available (e.g., Health Canada 1999). The literature

indicates that outpatient services are generally more cost effective than residential services when client characteristics are taken into account. However, this may not be the case when it is necessary to provide services to people living in small, relatively isolated communities. In these cases it may be less expensive to bring individuals to a central residential facility, rather than establish a large number of outpatient services serving just a few clients each. It is also possible that residential services are especially cost effective for some types of clients. Some professionals believe this to be the case as there is clearly a demand for residential services in both Canada and internationally from professionals, clients and families alike.

4.1 Program Length

Traditionally the most common program length for adults with substance abuse problems has been 28 days, but therapeutic communities generally operate programs of six to twelve months in duration. These programs tend to serve young adults (18-30) with drug and alcohol problems. However, in many cases funding arrangements limit stays to 21 days or less. Longer-term programs are typically designed for people with more serious mental health and social problems. Supporters of longer-term residential programs find endorsement in studies that show positive relationships between program length and improved outcome.

Bleiberg (1994) found a positive relationship between treatment length and treatment outcome among drug users treated in a veterans therapeutic community. The therapeutic community changed from a 6-month to a 1-month program by external administrative mandate, and had undergone virtually no other changes. Twenty-two subjects who received 6 months of treatment and 22 who received 1 month were compared. The 6-month group was shown to have more successful outcomes.

A recent large scale US study suggests that the longer most episodes of treatment for addiction last, the better -- up to a point (Zhang et al. 2003). The study focused on 4,005 patients treated for addiction to cocaine, heroin, or marijuana in 62 publicly funded programs across the US. The patients were enrolled in the National Treatment Improvement Evaluation Study during the mid-1990s and interviewed at admission, discharge and a year after treatment ended. The goal was to determine whether the treatment system worked and how its effectiveness depended on factors such as length of treatment, staff credentials and specific clinical strategies. The study indicated that treatment for up to 18 months in residential settings or 15 months in outpatient care typically yield the greatest reductions in illicit drug use, cutting drug use levels by two-thirds or more. These results suggest that treatment episodes in drug-free programs should be prolonged beyond the typical 3 to 6 months, but that there are diminishing returns after 15 to 18 months.

Conversely, Trent (1998) found that a reduction from 6 weeks to 4 weeks in the length of the U.S. Navy's inpatient alcohol treatment program had no adverse effect on outcome.

Also, Long et al. (1998) found that a two-week in- and day treatment program was more cost-effective than a 5-week in-patient program for adults with a diagnosis of alcohol dependence.

Supporters of longer-term residential programs also find endorsement in studies that show positive relationships between length of stay in treatment and improved outcomes (see below).

4.2 Length of Stay and Associated Factors

Program completion rates in 21-28 day programs are generally in the order of 70%. Drop out rates in longer-term therapeutic communities have traditionally been very high (up to 90%) with drop out being most common in the first 90 days of residence.

There are several studies of residential programs for adult substance abusers that examine length of stay in a program and treatment outcome. McCusker (1995) conducted randomized controlled trials at two residential drug abuse treatment facilities to compare programs that differed in planned duration. One trial compared a 6-month and a 12-month therapeutic community program (n = 184), and a second compared a 3-month and a 6-month relapse prevention program (n = 144). Retention rates over comparable time periods differed minimally by planned treatment duration, and consequently the longer programs had lower completion rates (60% leaving during first six months⁵). There was no effect in either trial of planned treatment duration on changes in psychosocial variables between admission and exit or on rates or patterns of drug use at follow-up between 2 and 6 months after exit. In another study, McCusker et al. (1997) found that individuals admitted to programs of longer planned duration dropped out of treatment earlier and had worse outcomes than those who dropped out of shorter programs. However, on average those who stayed in treatment for at least 80 days benefited from continuing treatment for up to six months but not beyond.

Drop-outs and non-compliers typically do less well than those who complete programs to the satisfaction of therapists, and several studies have shown positive relationships between length of stay and favorable treatment outcomes (Moos et al. 1990; De Leon and Jainchill 1981; Hubbard et al. 1989; Bleiberg et al. 1994). However, as reviewed in the Part 2 of this Section, this does not necessarily mean that longer-term treatment is better than shorter treatment. Once again, this is because individuals who stay in treatment for longer periods are likely to be differently motivated from those who do not. To reiterate, studies that control for client characteristics are needed to show the relative effectiveness of programs of different durations.

Comparable to the youth specific literature reviewed, program characteristics and staff relationships in adult residential treatment programs have been shown to have an influence on client retention and drop out rates. Craig (1985) reports that drop out rates

⁵ Calculated by authors using data presented in the report.

can be reduced by addressing such variables and found that client retention increased from 20% to 70% after the following changes were made to the residential program studied:

- Screen-out grossly unmotivated clients.
- Require other potentially unmotivated clients to complete an outpatient program (30-60 days).
- Require clients to sign a treatment contract.
- Identify and address barriers to completing treatment (e.g., pending court case).
- Improve staff understanding of client problems.
- Rearrange staff schedules to ensure evening coverage by counselors.
- Ask patients wishing to leave against advice to explain their reason to a community group.
- Institute a procedure that allows patients to be held for up to five days following a request to leave.
- Have special groups for first admissions (at higher risk for premature discharge).

Client characteristics that have predicted drop out in residential treatment for adult substance abusers include: being male and having poor coping skills (Klein et al. 2002; Andersen and Berg 2001), lower expectations that staying in treatment will bring benefits consistent with personal values (Andersen and Berg 1997), lower group status (McCormish et al. 1999), being female (Boylin et al. 1997), not cutting down on drug use before starting treatment (Zhang et al. 2003), and measures of cooperation, perception of the patient to work together with the therapist, and helpfulness (De Weert et al. 2001)

SECTION III

IDENTIFICATION OF YOUTH RESIDENTIAL TREATMENT CENTRES

This section has two purposes. First, it identifies international youth residential solvent abuse treatment centres and related programs via searches of the world wide web and contact with professionals in field. Second, varying Canadian solvent abuse specific and related residential treatment programs are identified, based on a search of the Canadian Centre on Substance Abuse Addictions Treatment Database.

1. International Youth Solvent Abuse Residential Treatment Programs

Youth solvent abuse residential treatment programs have been identified in the United States. Several additional programs that claimed to specialize in solvent abuse treatment were uncovered, but all were found to no longer be in operation, including the Colorado Inhalant Abuse Program (Denver, CO), Inman Residential Treatment Centre (San Antonio, TX), Natitch Salallie Youth Residential Treatment Program (Heizer, OR) and Our Home Inhalant Abuse Treatment Program (Huron, SD). Due to the limited number of treatment programs uncovered, related programs of interest have been identified in Australia, New Zealand and Canada⁶. Table 1 (below) outlines these programs: two youth residential solvent treatment programs, an adult residential solvent treatment program, and three culturally specific solvent abuse bush programs (one is Canadian). The table also provides a brief overview of each program's purpose, duration, evaluative component, and contact information (see Appendix D for a more detailed summary of each program).

TABLE 1: International Youth Solvent Abuse Residential Treatment Programs

PROGRAM	PURPOSE	DURATION	EVALUATION	CONTACT
<i>Youth Residential Solvent Treatment</i>				
Our Home, Inc. Inhalant Abuse Treatment Program Huron, South Dakota USA <i>(This program is no longer in service, but remains of interest primarily due to its evaluative component)</i>	To provide youth (10-17) inhalant abusers residential treatment and to develop a treatment model based on empirical evidence.	3 months	~Test-retest ~Objective measures	Steve Gubbrud Executive Director 40354 210th St. Huron, SD USA 57350 Tel: (605) 353-1025 sgubbrud@ourhomeinc.org

⁶ Canada specific programs are discussed in the next section.

<p>Tundra Swan Inhalant Treatment Program Bethel, Alaska</p> <p><i>(Being based on the White Buffalo treatment program, Tundra Swan is well known to YSAC, however its evaluation and research components are of interest)</i></p>	<p>To address inhalant abuse among Native youth (10-17) in Alaska</p>	<p>4 months</p>	<p>~Self -adjusting treatment evaluation model ~Residential treatment evaluation is quasi-experimental nonequivalent comparison or cohort group design with pre-test and treatment outcome and repeated post-test measures.</p>	<p>Bernard Segal Evaluation Director Centre for Alcohol and Addiction Studies CAAS-DPL-530, Fairbanks, Alaska, 99508. Tel: (907) 786-6582 Fax: (907) 786-6576, afbosl@uaa.alaska.edu</p>
<p><i>Adult Residential Solvent Treatment</i></p>				
<p>Kickapoo Healing Grounds</p>	<p>To establish a community of recovering traditional Kickapoo people.</p>	<p>Can be over a year</p>	<p>Unknown</p>	<p>Mary Scott Director of the Healing Grounds HC 1 Box 9700 Eagle Pass, Texas USA 78852 Tel: (830) 773-5503</p>
<p><i>Culturally Specific Solvent Abuse Bush Programs</i></p>				
<p>Okonungegayin Solvent Abuse Program</p> <p><i>(This program is no longer in service, but is of interest because it is Canadian)</i></p>	<p>Bush camp treatment</p>	<p>3 months</p>	<p>Unknown</p>	<p>Lake of the Woods District Hospital, 21 Sylvan Street West, Ontario, Canada, P9N 3W7 Tel: (807) 468-9861</p>
<p>Dry Out Camp for Sniffers</p>	<p>Bush camp treatment</p>	<p>Depending on the severity and the number of young people sniffing, Dry Out Camp could take up to 3-12 months. This could include</p>	<p>Yes, qualitative</p>	<p>Brent Fredberg Yalata/Maralinga Health Service Inc. Yalata Community via Ceduna South Australia 5690 Tel: 08 8625 6237</p>

		short stays back in the community under strict supervision.		
Injartnama Aboriginal Corporation's Western Line Project	Residential outstation program	As per individual needs or as court directed. No limits are usually placed on amount of time clients can spend at the program.	Unknown	Injartnama Aboriginal Corporation's Western Line Project Injartnama Outstation Hermannsburg, NT Australia Tel: 61 8 953-2567 Fax: 61 8 953-4919

In the extensive search for solvent abuse residential treatment programs, a solvent abuse coalition, a solvent misuse network and a solvent and volatile substance abuse society were identified and thought to be of interest to YSAC (if not already known about) (see Table 2). The *National Inhalant Prevention Coalition (Austin, TX)* is a public-private effort to promote awareness and recognition of the under publicized problem of inhalant abuse, and serves as an inhalant referral and information clearing house. The *Network for Solvent Misuse (London, UK)* is a collection of individuals and organizations working together to raise awareness of solvent and volatile substance abuse and to improve and disseminate good practice. Its objectives are to gather information around volatile substance abuse issues, to disseminate good practice, to identify gaps in current provision and to establish a local and national network of support for all professionals working with children and young people in order to support issues around volatile substance abuse. *Re-Solv, The Society for the Prevention of Solvent and Volatile Substance Abuse (West Lothian, Scotland)* was founded in 1984 and remains the only national charity in Scotland dedicated to the prevention of solvent and volatile substance abuse. Re-Solv provides a voice for its 350 members and a platform for effective action.

TABLE 2: International Solvent Abuse Networks

<p>National Inhalant Prevention Coalition Harvey Weiss Executive Director National Inhalant Prevention Coalition 2904 Kerbey Lane Austin, Texas 78703 Tel: 800.269.4237 or 512.480.8953 Fax: 512.477.3932 nipc@io.com http://www.inhalants.org/</p>	<p>Network for Solvent Misuse Monica Burchell Development Officer Solvent Misuse Network Development Project Drug Education Forum National Children's Bureau 8 Wakely Street London UK EC1V 7Q3 mburchell@ncb.org.uk http://www.drugeducation.org.uk/about/work.htm</p>
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Re-Solv, The Society for the Prevention of Solvent and Volatile Substance Abuse

Warren Hawksley

Director

135b Main Street

East Calder

West Lothian, Scotland

EH53 0EP

Tel: 01506 881498

re_solvscotland@onetel.net.uk

<http://www.re-solv.org/Documents/index3.htm>

2. *Canadian Youth Residential Solvent Abuse Specific and Related Treatment Programs*

The Canadian Centre on Substance Abuse maintains an on-line database of federal, provincial, hospital, private and community funded addiction treatment services in Canada⁷. As of February, 2003⁸, 1,012 addiction treatment programs were identified, which is estimated to be approximately 85% coverage of all addiction treatment programs offered in Canada.

The database was searched by addiction (solvent, gas, inhalants specific and as part of a program), setting (long term residential, 3 months plus, and medium term residential, 1-3 months) and specialization (Aboriginal/First Nations people, children/adolescent, young adults). Programs identified as being of most relevance are outlined below (criteria are: have considerable experience and vary in approaches to treatment program design)⁹. It is important to recognize that a program may claim to provide treatment for solvent abuse in the database, however, experience has shown that this may not necessarily translate into solvent abuse specific treatment techniques being employed.

Nine Aboriginal/First Nations specific and five non-Aboriginal/First Nations specific residential addiction treatment centres were identified to be of interest to YSAC (e.g., length of treatment, approach to treatment) (see Table 3).

⁷ The initial collection of treatment program information was in 1994. A list of programs was created using records based on previous national surveys, provincial directories in Quebec, Ontario and British Columbia, Newfoundland, Native Provincial Directories, the National Native Alcohol and Drug Abuse Program treatment directory and local contacts throughout the country.

⁸ Based on a 2000 national update survey and limited consequent information identified by the database manager.

⁹ The database can be accessed at: <http://www.ccsa.ca/Databases/treatengsimple.htm>

TABLE 3: Canadian Youth Residential Solvent Abuse Specific and Related Treatment Programs

Treatment Program

Aboriginal/First Nations Specific

- | | |
|---|------------------------|
| 1. Anarrapik Group Home | Solvent abuse specific |
| 2. Awashishuk Centre | Solvent abuse specific |
| 3. Ahki Pimadizewening Weecheeway Healing Centre | |
| 4. Eagle Moon / Lone Pipe Lodge | |
| 5. Poundmaker's Adolescent Treatment Centre | |
| 6. Weechi-it-te-win Training and Learning Centre | |
| 7. Pritchard House, Native Addictions Council of MB | |
| 8. Native Addictions Services Society | |
| 9. Wilp Si' Satxw Community Healing Centre | |

Non-Aboriginal/First Nations Specific

1. Ranch Ehrlo Society
2. Dianova Canada Inc.
3. Alberta Adolescent Recovery Centre
4. Ridgewood Addiction Services
5. Venture Academy Youth Substance Abuse Treatment

Aboriginal/First Nations Specific Residential Treatment Programs

1. Anarraapik Group Home

Inukjuak QC J0M 1M0

Contact: Johnny Kingalik - Manager

Telephone: (819) 254-8822 (819) 254-8887; Fax: (819) 254-8779

Languages English; Inuktitut

Description This substance abuse program is locally operated and funding is made available from the Regional Board of Health and Social Services.

Abstinence Not required

Addictions treated Solvents/gas/inhalants

Treatment setting Long term residential (3+ months); Outreach

Services offered Detoxification centre; Treatment and counselling program

Target clientele Women; Men; Children (under 16 years); Aboriginal/First Nations people; People with sexual abuse issues

2. Awashishuk Centre

P.O. Box 209

Moose Factory ON P0L 1W0

Contact: Jessie Spoon - Supervisor

Telephone: (705) 658-4384; Fax: (705) 658-4850

Languages English

Description This program focuses on adolescents and particularly inhalant users. They work on life-skills, coping skills and good decision making.

Abstinence Reduced alcohol consumption

Addictions treated Solvents/gas/inhalants

Treatment setting Long term residential (3+ months); Short term residential (up to 1 month)

Services offered Assessment; Treatment/counselling program; Aftercare program

Target clientele Adolescents (16 to 18 years)

3. Ahki Pimadizewening Weecheeway Healing Centre

Residential Solvent Abuse Centre for Youth

P.O. Box 77

Cat Lake ON P0V 1J0

Contact: Colleen Ombash - Executive Director

Telephone: (807) 347-2222; Fax: (807) 347-2221

Languages Cree; English; Ojibway

Description Three month residential program for youth between the ages of 12 and 18 years. Youth who are dependent on substances and have behavioural problems are admitted into the three month program that focuses on land-based treatment and wilderness survival skills

	as an alternative approach to healing.
Abstinence	Reduced alcohol consumption; Reduced drug consumption
Addictions treated	Alcohol; Solvents/gas/inhalants; Other behaviours
Treatment setting	Day or evening treatment; Medium term residential (1-3 months)
Services offered	Aftercare program; Treatment/counselling program
Target clientele	Adolescents (16 to 18 years); Young adults (18 to 24 years)
Clientele accepted	Young adults (18 to 24 years); Adolescents (16 to 18 years)

4. Eagle Moon / Lone Pipe Lodge

9400 - 48th Avenue North West
 Calgary AB T3B 2B2
 Contact: Teri Basi - Program Manager
 Telephone: (403) 247-7115, 1 (800) 563-610; Fax: (403) 286-0878
teri.basi@woodshomes.com
<http://www.woodshomes.com>

Languages	English
Description	Eagle Moon Lodge and Lone Pipe Lodge serve the needs, on a fee-for-service basis, of First Nation adolescents age 10 to 17 years old with a history of suspected or known substance abuse as well as risk factors (FAS/FAE, ADHD, etc.) related to substance abuse concerns. The Eagle Moon and Lone Pipe programs offer addiction treatment to First Nations young people and their families from across Canada. Eagle Moon is an eight-bed residential treatment facility while Lone Pipe Lodge is a six-bed residence in the Northeast community in Calgary. The Eagle Moon and Lone Pipe Lodge programs embody the belief that the power of healing is within the group as well as within the individual. This is accomplished through a relationship-focused environment with peer supports. The programs also offer aftercare services as well as community-based training and consultation.
Abstinence	Not required
Addictions treated	Amphetamines; Hallucinogens; Solvents/gas/inhalants; Cannabis (marijuana); Alcohol; Cocaine
Treatment setting	Long term residential (3+ months); Day or evening treatment; Outreach
Services offered	Assessment and referral service only; Detoxification centre; Treatment and counselling program; Aftercare program; Residential treatment for adolescents
Target clientele	Men; Women; Pregnant women; Gays; Lesbians; Transgendered; Children (under 16 years); Adolescents (16 to 18 years); Aboriginal/First Nations people; People with concurrent psychiatric problems; People with HIV/AIDS; Street youth or other out-of-mainstream people; People with sexual abuse issues; People with brain injuries including FAS/FAE; People with a history of violence

5. Poundmaker's Adolescent Treatment Centre

4637 - 45th Avenue
 St. Paul AB T0A 3A3
 Contact: Linda Boudreau - Director
 Telephone: (780) 458-1884 1 (866) 645-1888; Fax: (780) 459-1876

linda-boudreau@poundmaker.org

Languages	English; Aboriginal languages
Description	The target group is aboriginal adolescents age 12 to 17 years, who have an addiction concern. This is a 90-day program of intensive individual and group counselling with a high level of exposure to cultural/traditional experiences and personnel. All clients attend academic programming from an aboriginal perspective for a minimum of 20 hours per week. Recreation programs are enhanced to rebuild damaged physical areas and to challenge clients to develop in a holistic manner. Individual and group outings are facilitated to expose clients to alcohol/drug/violence free activities in our area. This is an intensive program designed to enhance growth for all clients in all areas of their lives.
Abstinence	Preferable
Addictions treated	Alcohol; Amphetamines; Cannabis (marijuana); Cocaine; Hallucinogens; Opiates (heroin); Solvents/gas/inhalants
Treatment setting	Long term residential (3+ months); Medium term residential (1 to 3 months)
Services offered	Detoxification centre; Treatment and counselling program
Target clientele	Men; Women; Pregnant women; Gays; Lesbians; Children (under 16 years); Adolescents (16 to 18 years); Aboriginal/First Nations people; People with HIV/AIDS; Injection drug users; Impaired drivers; Street youth or other out-of-mainstream people; People with sexual abuse issues; People with brain injuries including FAS/FAE; People who have gambling problems; People with a history of violence

6. **Weechi-it-te-win Training and Learning Centre**
P.O. Box 812
Fort Frances ON P9A 3N1
Contact: Brenda Whitehead - Residential Counsellor
Telephone: (807) 274-4571; Fax: (807) 274-0218
http://www.carleton.ca/~mflynmbu/lori_flinders/

Languages	English; Ojibway
Description	The Training and Learning Centre exists to provide professional, culturally appropriate residential services to youth who require either a child welfare placement or more formal treatment services and for individuals with substance abuse and mental health problems. The Training and Learning Centre understands that the creator has entrusted the Anishinabe people with the sacred responsibility of maintaining and sustaining Anishinabe children, families and communities. Programs are holistic and focus both on symptoms, such as alcohol abuse, and other addictions, and on the spiritual, emotional, social and physical dimensions of the youth and his/her family. The Centre provides assessment, service planning, treatment and case management services as well as a number of cultural activities and events.
Abstinence	Not required
Addictions treated	Alcohol; Cocaine; Hallucinogens; Solvents/gas/inhalants; Cannabis (marijuana)
Treatment setting	Long term residential (3+ months)
Services offered	Treatment and counselling program
Target	Children (under 16 years); Adolescents (16 to 18 years); Aboriginal/First Nations people;

clientele People with concurrent psychiatric problems; Street youth or other out-of-mainstream people; People with sexual abuse issues

7. Native Addictions Council of Manitoba
Pritchard House Inpatient Treatment Centre
160 Salter Street
Winnipeg MB R2W 4K1
Contact: Elizabeth Fontaine - Executive Director
Telephone: (204) 586-8395; Fax: (204) 589-3921
nacm@escape.ca
<http://www.escape.ca/~nacm>

Languages English; Cree; Ojibway

Description Native Addictions Council of Manitoba's Pritchard House Rehabilitation centre is the longest-running native-staffed treatment centre in Manitoba. More than 90% of the programming is based on Native Cultural traditions, with the remainder of the program consisting of methods chosen from current addictions treatment techniques. Pritchard House is a 42-day program. They provide assistance to anyone who is earnestly seeking to regain the health that is everyone's birthright.

Abstinence Yes, definitely

Addictions treated Alcohol; Amphetamines; Cannabis (marijuana); Cocaine; Hallucinogens; Opiates (heroin); Solvents/gas/inhalants

Treatment setting Medium term residential (1 to 3 months); Day or evening treatment; Outpatient; Walk in; Outreach; Intervention

Services offered Treatment and counselling program

Target clientele Men; Women; Pregnant women; Gays; Lesbians; Transgendered; Children (under 16 years); Adolescents (16 to 18 years); Young adults (18 to 24 years); Seniors (60 and over); Aboriginal/First Nations people; People with HIV/AIDS; Impaired drivers; People with sexual abuse issues; People with brain injuries including FAS/FAE; People who have gambling problems; People with a history of violence

8. Native Addictions Services Society
Residential Services
922 - 21 Avenue S.E.
Calgary AB T2G 1N1
Contact: Lenora Richardson
Telephone: (403) 261-7921; Fax: (403) 269-5578
lenorarichardson@home.com

Languages English; First Nations

Description The mission is to provide holistic community-based addictions programming that supports Aboriginal beliefs and values. In a setting of hope and dignity, the goal is to empower individuals affected by addictions, and to guide them in their healing process. They have two specialty programs dealing with domestic violence and aggression.

Abstinence Preferable

Addictions treated Alcohol; Amphetamines; Anabolic steroids; Cannabis (marijuana); Cocaine; Hallucinogens; Opiates (heroin); Solvents/gas/inhalants

Treatment setting Medium term residential (1 to 3 months); Short term residential (up to 1 month); Day or evening treatment; Outpatient; Outreach; Walk in

Services Treatment and counselling program; Aftercare program

offered

Target clientele Men; Women; Pregnant women; Children (under 16 years); Adolescents (16 to 18 years); Young adults (18 to 24 years); Seniors (60 and over); Aboriginal/First Nations people; People who have gambling problems; People with a history of violence

9. Wilp Si' Satxw Community Healing Centre

P.O. Box 429
Cedarvale-Kitwanga Road
Kitwanga BC V0J 2A0
Contact: Darlene Hockman - Referral Contact
Telephone: (250) 849-5211; Fax: (250) 849-5374
wilp_chc@kermode.net

Languages English; Gitksan

Description Wilp Si Satxw is a Society Healing Treatment Centre with a holistic approach to the healing process. They see the following as important components to the healing journey: spiritual; emotional; mental; physical. Each person has the ability to confront problem issues and secure their personal power to walk in health and wellness. They teach that each person is responsible for themselves and that self healing is a personal choice. The goal is to provide information concerning: alcohol and drug abuse; addictive behaviour; communication; childhood abuse; traditional native values; creating healthy relationships; self awareness/self care; A.A. programs; relaxation/visualisation/ meditation; family cycles; grief. Their philosophy is: "We believe that you can change your life. You may think that you will be cured when you leave here, however, treatment is just the beginning, not the whole answer. You will get an opportunity to really see yourself and where you came from, while learning new skills to start and continue your healing journey. The people around you (during 5 weeks) become your family. They help you to see yourself and become the mirror that reflects your image. They give constructive feedback and share openly and honestly with each other about your life stories".

Abstinence Preferable

Addictions treated Alcohol; Amphetamines; Cannabis (marijuana); Cocaine; Hallucinogens; Opiates (heroin); Solvents/gas/inhalants; prescription drugs

Treatment setting Medium term residential (1 to 3 months); Short term residential (up to 1 month); Day or evening treatment; Outpatient; Outreach; Intervention

Services offered Treatment and counselling program; Outreach

Target clientele Men; Women; Children (under 16 years); Young adults (18 to 24 years); Seniors (60 and over); Aboriginal/First Nations people; People with sexual abuse issues; People with a history of violence;

Non-Aboriginal/First Nations Specific Residential Treatment Programs

1. Ranch Ehrlo Society

Substance Abuse Treatment Program
P.O. Box 570
Pilot Butte SK S0G 3Z0
Contact: David Rivers - Intake
Telephone: (306) 781-1800; Fax: (306) 757-0599
drivers@ehrlo.com
<http://www.ehrlo.com>

Languages	English
Description	The Ranch Ehrlo Society delivers residential treatment for children and adolescents who have abused or are dependent on alcohol, drugs (illicit and/or prescription), and/or volatile substances. Many youth who display problems with substance abuse have other social, emotional, psychological, cognitive and behavioural problems. They are often dually diagnosed with a secondary behaviour and/or mood/anxiety disorder. A holistic and intensive treatment approach is utilized in order to assist young people to break problematic behaviour patterns, acquire relapse prevention skills and develop a healthier lifestyle.
Abstinence	Not required
Addictions treated	Alcohol; Amphetamines; Cannabis (marijuana); Cocaine; Hallucinogens; Opiates (heroin); Solvents/gas/inhalants
Treatment setting	Long term residential (3+ months); Medium term residential (1 to 3 months)
Target clientele	Children (under 16 years); Adolescents (16 to 18 years); Aboriginal/First Nations people; People with concurrent psychiatric problems; People with sexual abuse issues; Street youth or other out-of-mainstream people; People with brain injuries including FAS/FAE; People with a history of violence

2. **Dianova Canada Inc.**
1575 Beaudry Street
Montreal QC H2L 3E8
Contact: Martin Pagé - Intake
Telephone: (514) 875-7013; Fax: (514) 875-5871
dianova.Montreal@videotron.net
<http://www.dianova.ca>

Languages	English; French
Description	Dianova offers an educational approach in residential environments to adults and young adults for whom the use of psychoactive substances (including alcohol and other drugs) has become a way of life, and to adolescents experiencing problems, including behavioural, as a result of substance abuse. A key to the success of the therapy is the support provided to residents by their peers in later stages of treatment, under the supervision of Dianova on-site staff (consisting of former abusers with broad training in drug rehabilitation and drug counsellors). Medical and psychological professionals are available on-site and/or on-call. The length of the program is tailored to the needs of the individual, normally lasting between 8 and 12 months. The rehabilitation process includes daily therapeutic discussions, cultural activities, sports and introductory vocational programs, all designed to help the resident to learn trust, teamwork, self-esteem, self-reliance and other personal traits necessary to a productive life in normal society. After assessment has been completed, the individual is referred promptly to a suitable Dianova centre.
Abstinence	Not required
Addictions treated	Alcohol; Amphetamines; Cannabis (marijuana); Cocaine; Hallucinogens; Opiates (heroin); Solvents/gas/inhalants
Treatment setting	Long term residential (3+ months)
Services offered	Detoxification centre; Treatment and counselling program
Target clientele	Adolescents (16 to 18 years); Young adults (18 to 24 years)

Clientele accepted Aboriginal/First Nations people; Adolescents (16 to 18 years); Children (under 16 years); Gays; Health professionals; Impaired drivers; Injection drug users; Lesbians; Men; People with a history of violence; People with brain injuries including FAS/FAE; People with concurrent psychiatric problems; People with HIV/AIDS; Street youth or other out-of-mainstream people; Transgendered; Women; Young adults (18 to 24 years)

3. Alberta Adolescent Recovery Centre

303 Forge Road South East
Calgary AB T2H 0S9
Contact: A. Henderson - Clinical Supervisor
Telephone: (403) 253-5250; Fax: (403) 640-2520
ahenderson@aacrc.ab.ca

Languages English

Description The client base is made up of severely drug and/or alcohol addicted adolescents aged 1 to 21 and their families. The Alberta Adolescent Recovery Centre is a not-for-profit, long-term treatment centre for adolescents suffering from advanced stages of drug and/or alcohol addiction, and their families. This program is unique in Canada - created by the foremost expert in adolescent addictions in North America, and uses trained professionals, peer counsellors and recovery homes (homes of adolescents whose families are further along in the recovery process) in the treatment process. The treatment model is intense, highly structured and multidisciplinary. It teaches life, social and leisure skills that promote the adolescent's commitment to remaining free from drugs and/or alcohol, and leading a productive life within the community. Family involvement is an integral part of the program. Each family member is provided with individual and group counselling, as well as a strong support network. The AACRC treatment model utilizes the twelve steps of Alcoholics Anonymous. The program has an approximate 90% success rate.

Abstinence Preferable

Addictions treated Alcohol; Amphetamines; Anabolic steroids; Cannabis (marijuana); Cocaine; Hallucinogens; Opiates (heroin); Solvents/gas/inhalants

Treatment setting Long term residential (3+ months)

Services offered Detoxification centre; Aftercare program; Treatment and counselling program

Target clientele Children (under 16 years); Adolescents (16 to 18 years); Young adults (18 to 24 years); Injection drug users; People on methadone; Impaired drivers; Street youth or other out-of-mainstream people; People with sexual abuse issues; People with a history of violence

4. Ridgewood Addiction Services

P.O. Box 3566, Station B
216 Bay Street
Saint John NB E2M 4Y1
Contact: Art Naish
Telephone: (506) 674-4300; Fax: (506) 674-4374
naisha@nbnet.nb.ca

Languages English; French

Description Ridgewood Addiction Services is a community based agency of the Atlantic Health Sciences Corporation. Professional staff provide a broad range of services to chemically dependent clients, compulsive gamblers, family members and the community. Programs employ a holistic approach to assist clients to achieve a healthy, balanced lifestyle.

Abstinence Preferable

Addictions treated Alcohol; Amphetamines; Anabolic steroids; Cannabis (marijuana); Cocaine; Hallucinogens; Opiates (heroin); Solvents/gas/inhalants

Treatment setting Long term residential (3+ months); Short term residential (up to 1 month); Day or evening treatment; Outpatient; Walk in

Services offered Detoxification centre; Aftercare program; Treatment and counselling program

Target clientele Men; Women; Children (under 16 years); Adolescents (16 to 18 years); Young adults (18 to 24 years); People on methadone; People who have gambling problems;

5. Venture Academy Youth Substance Abuse Treatment

101 - 1865 Dilworth Drive, Suite 338
 Kelowna BC V1Y 9T1
 Contact: Gordon Hay - Director
 Telephone: 1 (866) 762-2211; Fax: (250) 712-9776
info@ventureacademy.ca
<http://www.ventureacademy.ca>

Languages English

Description Venture Academy provides a 4-5 month private residential drug and alcohol treatment program located in British Columbia and serves youth ages 15 - 18 from across Canada. Youth may be experiencing difficulties managing their lives at home, at school or in the community due to substance abuse and related issues. The staffed residential resources, intensive counselling, treatment and support services are designed for youth struggling with substance abuse, family conflicts, school suspensions, negative peer relationships, criminal behaviour, emotional problems, clinically diagnosed disorders and other significant behavioural challenges. They operate under a bio-psycho-social model and utilize an approach that is solution oriented with a focus on skill building and movement towards positive change. The holistic program also incorporates daily living skills, education, recreation, emotional growth support, and backcountry based therapeutic/recreational excursions. There is never a wait list and admissions are accommodated through an expedient assessment process in which the parents and youth are involved in treatment planning. 24-hour Crisis Admissions also available. No government referrals or involvement. If longer-term treatment is identified as necessary, youth (ages 14-20) can access other Venture Academy therapeutic residential treatment programs.

Abstinence Preferable

Addictions treated Alcohol; Opiates (heroin); Cocaine; Amphetamines; Hallucinogens; Solvents/gas/inhalants; Cannabis (marijuana); Anabolic steroids

Treatment setting Long term residential (3+ months); Short term residential (up to 1 month)

Services offered Assessment and referral service; Treatment and counselling program; Aftercare program

Target clientele Gays; Lesbians; Transgendered; Children (under 16 years); Adolescents (16 to 18 years); Young adults (18 to 24 years); Aboriginal/First Nations people

SECTION IV

SURVEY OF ATTENDEES AT AN INTERNATIONAL CONFERENCE ON INHALANT USE AND DISORDER (AUSTRALIA)

The Australian Institute of Criminology Inhalant Use and Disorder Conference agreed to include a participant survey from YSAC in its conference satchels to gather information on treatment program length and length of client stay and solvent abuse treatment centres in general. The conference is scheduled for July 7-8, 2003 and its aim is to provide an opportunity for practitioners, researchers, policy-makers and community groups involved with inhalant misuse to discuss the topic, share knowledge and develop strategies to address relevant issues. Particular emphasis is being placed at the conference on preventive approaches and proactive programs. Attendees will include: health and welfare professionals, community workers, commonwealth, state and local government agencies, police, academics, youth organizations, policy makers, lawyers and concerned citizens.

The survey has been submitted to the conference for inclusion in its satchels (see Appendix E for copy of the cover letter). Approximately 200 individuals are expected to attend the conference. Upon return of the surveys, they will be analyzed and submitted to YSAC by August, 2003 (anticipated).

The survey questions are:

1. If you are aware of any residential treatment programs for youth solvent abusers in Australia or internationally, can you please provide the name of the program and any available contact information (e.g., website, telephone number)?
2. In your professional opinion, do you consider there to be a need for long-term (6 month or more) residential treatment programs for young solvent abusers? Please explain and indicate how long you believe such programs should be.
Unless indicated otherwise, the following questions are specific to solvent abuse treatment. Please note if your response is not solvent-abuse specific.
3. Do you think that a fixed length of program treatment time is preferable to one where clients are discharged based on individual success in treatment? Please explain.
4. Drawing on your experience, what effects how long a client will stay in treatment? Are any factors specific to youth in general? Aboriginal youth? Solvent abusers?
5. What should determine how long an individual client is required to stay in a treatment program? Is time in residence an important consideration in client success?
6. Based on your knowledge, how does program staff generally determine when a client is ready to be discharged from residential treatment?
7. What do you feel are essential components of a residential program that ensure the majority of clients complete it?
- 8A Based on your professional knowledge, do you feel there are any potentially negative effects on youth (aged 12-18) when they are treated in long-term (6

- months or more) or shorter-term (4 months) residential treatment programs (e.g., prolonged negative peer influence, difficulties in re-entering into their home communities)?
- 8B Are the staff of longer-term residential programs for youth (6 months or more) at risk of any particular types of problems (e.g., burn out)?
9. Do you have any recommendations for implementing change in program length (e.g., from a 6 month to a 4 month model) in a residential treatment centre (e.g., program reputation, staff concerns)?
Name; Address; Position (e.g., academic, front-line service provider, agency Executive Director)

SECTION V

INTERVIEWS WITH KEY STAKEHOLDERS AND EXPERTS

As noted above attempt were made to interview all YSAC directors, regional MSB consultants and other experts in treatment. In some cases those contacted for interview chose to respond in writing. In total verbal and/or written comments were obtained from seven YSAC directors or acting directors, three MSB consultants, three directors of other program for First Nations youth and three other treatment experts. A program manager was also present for one telephone interview with a YSAC program director. Those providing verbal or written material for the project are list in appendix

Questions and the topic of responses varied somewhat depending on the interests and expertise of the respondent. However, across all respondents the following topics were covered and the results will be summarized under these topic headings:

- Rational and need for a six-month residential program.
- Experience with a four-month program (if applicable).
- Statistics on length of stay and mode of discharge.
- Client and program factors leading to premature discharge.
- Advantages and possible negative consequences of a fixed length versus flexible program and programs of different lengths.
- What can be done to reduce drop out

Rational and need for a six-month residential program

Respondents who addressed this issue were not always clear why YSAC programs were originally designed to be of six months duration. Some thought this was rather arbitrary while others though it was reasonable given the nature of chronic solvent abuse and the problems faced by users. The need for an extended period to ensure complete detoxification was also thought to have factored into the decision to establish programs of six months duration.

Several respondents indicated that in their experience six months was too long for young people to be in treatment and away from their families and friends.

“The kids get homesick and their families want them back home”.

Programs of six month duration were also seen as contributing to high drop out rates, boredom and acting out among clients who had gained as much as they needed in the first 3-4 months.

However, other emphasized the need to tailor all aspects of treatment, including the intensity and duration, to the needs of those being treated. Thus they proposed that some cases may only need to be in treatment for a short time while others may need a very long

periods of treatment engagement. One YSAC director indicated that one client was in residence for 16 months and that others might need to stay even longer.

The flexible approach is indicated by the following comments that were provided in writing:

“We do not advertise to the youth the program being 3 to 6 months because too many were coming with the idea of completing the program in three months. We focus with our clients on their own progress... their recovery objectives.. their learning and efforts in making changes in their lives..and these elements define the duration of their stay”

One respondent commented that the need for all nine residential programs to treat solvent abuse among First Nations Youth had not been established using objective means and that some programs were not able to fill their beds with chronic solvent abusers. This issue was not pursued for this project but it is important to note that two YSAC directors indicated that there programs served other populations including youth who had only experimented with solvents and those who had problems other drugs. In one case chronic solvent abusers were considered to be only a minority among all admissions. This clearly has implications for the many aspects of program delivery and may influence retention patterns and modes of discharge

Experience with a four-month program

Three programs have reduced their expected length of stay to four months and their directors indicated that the early indications were positive and that this was acceptable to many of the clients and their families. However, in two cases the change to a four-month program was associated with other changes that could have a direct impact on clients - changes to staff-client ratios, staff changes and significant changes to the core program. These concurrent changes will make it very difficult to evaluate the impact of the new four-month programs relative the previous six-month programs

On director indicated that before and since the change to a four-month programs the staff are collecting data on completion rates, progress in treatment, occupancy rates, participation, parental participation and client satisfaction and that these data will be used to determine if the four month program will become permanent. However, at present there are no hard data to indicate how a change to a four-month program influences these or other variables. Also no respondent indicated that objective client outcome data are likely to be available for representative groups of clients in either six- or four-month programs. Without such data the relative effectiveness of the two programs and, indeed, the overall effectiveness of YSAC programs will remain uncertain.

Statistics on length of stay and mode of discharge

All YSAC programs are required to submit statistical reports to Health Canada. However, these were not available to the project team at the time of writing. Only one YSAC program provided a report to the project team that included data on client length of stay. This was the White Buffalo Treatment Centre. The data showed that for 160 admissions from January 1997 to December 2001, the average length of stay was 88 days (just under 3 months). The range was from 2 to 188 days (White Buffalo Treatment Centre Annual Report 2001-2002).

White Buffalo also provided data showing that 37% of admissions completed the program and also a breakdown of reasons for early discharge:

Reason for discharge	Number discharged	Percentage
AWOL (includes failure to return from home visit)	25	24%
Breach of court conditions	2	2%
Incidents (not specified)	10	10%
Program termination	17	16%
Mental Health Concerns	1	1%
Withdrawn (includes parent, worker, or self removal)	43	40%
Other*	7	7%
TOTAL	105	100%

**includes family death, court order, return to trap-line, and non-participation*

The 2001-2002 YSAC report indicates that some other YSAC programs also have high rates of premature discharge (YSAC Annual Report, 2001-2002). However, the range of reported program completion rates varied widely (25% - 87%). These indicate the need for more research and analysis to determine if these differences reflect differences in clients or program policies.

Client and program factors leading to premature discharge

One respondent expressed concerns about using mode of discharge as an indicator of program performance or client progress:

“We strongly feel that the clients leaving the center before reaching graduation ..(are)...able to complete in some part their objectives even if minimal (and) this needs to be recognised and reinforced. And in some cases a one or two months stay have an important impact.”

Another emphasized the need to find out more about why people are dropping out and do more to prevent it. *“Otherwise they will simply recycle back into the system”*.

Others suggested one or more of the following reasons why clients leave prematurely

- Not motivated - some are on probation and don't want to be here
- Loneliness or homesickness
- Boredom
- They miss their friends and their old lifestyles
- Program gets to things they don't want to deal with
- Things are different from home - more structured - they can't get away with things
- Some find it difficult to adjust to institutional life with its rules and obligations

Some respondents also indicated that families sometimes pulled their children out of treatment before they were considered to have completed the program. This could be because the children were genuinely missed or due to a family crisis or because the family was unwilling to deal with family issues identified during treatment (e. parental substance abuse, physical or sexual abuse of the child). However, some respondents said families usually wanted their children to get treatment and were often able to convince their children not to leave programs prematurely.

Reasons for staff initiated discharges were:

- Violence or disruptive behaviours
- Sexually inappropriate behaviours

Advantages and possible negative consequences of a fixed length versus flexible programs and programs of different lengths

As previously noted some respondents emphasized the need for treatment to be client centred and flexible.

“We are already in a setting where we are not on a fixed cycle. Ever since we have started we have been on continued intake, no fixed date for cycle, and based on individual progress, respecting youths’ learning abilities, and individual rhythms. Based on the clinical assessment, in pre-treatment phases the referral identifies objectives for the residential program, our team assesses with the youths and our psychologist the Individualised Intervention plan goals and objectives, this plan is revised throughout the stay, and the teams determines when the youth have reached the objective of the programs, or in some cases when a youth has reached his or her limits in his or her progression at this time in his or her life”

“We allow kids to stay for up to 2 years but the longest has been 16 months and the average 3 months. Prefer a flexible client centred approach. Length of stay is

not the issue but what is happening to the client. Some may get as much as they need in 3-4 months but others need much more.”

“We allow 30 day extensions over a 90 day program .. (this is)- negotiated between clients, family and referral source”

“ Clients have freedom to chose and most chose 3-4 months when asked at admission”.

“Clients come in with different maturity levels. They get bored when they advance and get into mischief”

Others saw some disadvantages to program that were too flexible:

“A flexible LOS policy could be a problem - because some kids want out ASAP and will find it hard to accept that some can leave sooner than others”

“Prefer a fixed length program because when people come and go this can disrupt the group process. We also have alternate male/female admission cycles and could not do this if clients were continuously coming and going”

“A prescribed length of treatment is most effective - adolescent don't have the capacity to make positive choices in relation to personal growth and wellness issues particularly when they are using substances”

“It is much easier to run a program when trust is built within a group. When a new client comes in they are severely tested by the old group”

“Fixed program provides a set structure that is beneficial to clients. If parents and clients know the length of stay they can engage in the treatment process better”

“Fixed length is preferable due to the time, structure and being away from substances and is helpful. Also the mindset is already there that they will be there for a particular time”

“Group work benefits from block intake but this does not preclude individualized attention”

What can be done to reduce drop out

Several respondents emphasized that all aspects of the YSAC programs are designed to engage clients in a process that they would wish to complete

“We do everything we can to encourage kids to stay. We try to be flexible, to create a homelike environment and to make the program fun”

Others mentioned one or more of the following as being especially conducive to continuance in treatment:

- Outdoor recreational activities such as - Bush Camps
- Life skills components
- Family involvement
- Education component
- Caring staff
- Good food and a safe environment

- More programming in the evenings when clients seem more receptive to counselling. Days are then spent do more physical activities such as learning traditional life skills.

- Clients have also been given more telephone privileges.
- Clients are allowed to smoke

Several respondents reported that programs have also instituted a process such as the following to prevent clients just walking out or leaving without thinking through the implications:

“We have instituted a process whereby those who want to leave complete a form explaining why and indicating the pros and cons. This is then reviewed by staff and the process often results in a change of mind. Sometimes staff say that they will make arrangements for a person to leave if they want to but this may take a day or so - some change there minds immediately or later. Try hard to prevent kids making risky decisions to leave. We tell them “Don’t make big decisions on a bad day”.

Several respondents also stressed that even if clients leave before completing the program they can receive aftercare services in the community and also be readmitted.

1. Conclusions

It is clear that there is still much to be learned about residential treatment programming for First Nations youth who abuse solvents, and that the issues of program length and client length of stay are far from resolved. However, at present there is no clear evidence that residential treatment programs for young solvent abusers need to be of any specific duration (e.g. six months) and reports from YSAC programs that are piloting four month programs suggest that these are running well and meeting client needs. However, more research is clearly needed including research on treatment outcomes.

The literature, interviews and other materials obtained for this report do, however, point toward the following general conclusions concerning the main issues of concern for the present project. In reviewing the conclusions, the reader must keep in mind that few of the programs reviewed for this report have been scientifically evaluated and that most of the evidence for program success is anecdotal or based on uncontrolled studies.

- Full recovery is often a lengthy process that may require several episodes of intensive treatment and longer-term care in the community.
- Community reintegration is a concern when youth are placed in residential care outside their home community, so there is need for extensive community based follow-through.
- Physical detoxification from solvents may take up to one month (or possibly longer for some). During this time counselling may have limited impact.
- It can take several weeks for some clients to adjust to the routine and discipline of a residential program.
- Client retention for a period (2-4 months), but not necessarily longer, may be needed for longer-term outcome success, but much depends on the client, his/her family and aftercare in the home community.
- Residential treatment programs do not need to run on a fixed cycle or to have a set length of treatment. Continuance in residence can be assessed on an ongoing basis and take account of client needs and motivations.
- Length of stay has been shown to be influenced by gender in some cases. This may reflect gender differences with respect to treatment needs and motivations.
- Some clients live in circumstances that seriously threaten their recovery and alternative, long-term or permanent accommodations may be required. However, this does not have to be in a residential treatment program.
- Parents of First Nations youth vary in their support for six-month residential programs and some clearly prefer shorter programs.
- Drop out rates are higher in longer-term residential programs and attrition is common among residential treatment programs in general.
- A role for the family in the recovery process, although ideal, cannot be assumed.

- Dropout rates are influenced by client selection and other factors within the control of program managers and staff (e.g., program schedule, homeliness of the environment, staff competence, how much fun clients can have, individual attention, smoking policy, process to handle stated intentions to leave).
- Most premature discharges are self-initiated. Loneliness, a desire to be with friends, families and partners, an unwillingness to accept program restrictions and discipline of the program, and/or to return to drugs are contributing factors.
- Self-initiated discharges also occur when emotional issues begin to be addressed.
- There is general support for the view that programs for First Nations Youth should teach about traditional values and skill.
- Premature discharge does not mean that a client has not benefited from treatment.
- Premature discharge does not preclude a client from receiving aftercare services or from returning for further treatment.
- Some YSAC programs admit clients who are not chronic solvent abusers for whom long-term residential treatment might be appropriate. Some mainly use other drugs while others have delinquency or mental health problems. This may reflect community needs or occupancy requirements. It is not know how this influences length of stay but it can be assumed that the needs of chronic abusers and experimental users are different.
- Drop out rates vary between YSAC programs. However, it is not known if this reflects client or program factors.

The literature, interviews and other materials obtained for this report also suggest there could be some negative consequences of residential treatment programs of varying lengths:

- Clients sometimes promote or reinforce deviant attitudes and behaviors. It is not known if this is more or less likely in short- or long-term programs but may be more likely in programs with a high turnover and few clients who can be role models for new admissions.
- For programs with an official fixed length of treatment, premature terminations may contribute to a sense of failure.
- Re-entry to the home community can be challenging and especially so for those absent for long periods.
- Residential treatment programs may expose problems of physical and sexual abuse, sometimes perpetrated by close relatives, and this may lead to client drop out.
- Clients may become bored or frustrated if they are required to stay in a program for long periods.

2. *Recommendations*

Most recommendations concern the need to evaluate YSAC programs and any changes to their length and related matters. A few tentative recommendations concerning program operations and staff development are also provided.

It is recommended that...

YSAC continue with their pilot studies of four-month programs as there appears to be valid reasons for doing so as relayed in this report. However, continuance in treatment up to and beyond four months would preferably reflect client needs and motivations rather than fixed policies. Best practices in treatment suggest client treatment be flexible and client-based because each youth develops at his/her own pace depending on their characteristics and needs..

Indicators of the impact of changing to a four-month model should be collected. These include pre-post measure of client length of stay and mode of discharge, pre-post measures of program participation and progress within treatment, and possible client and family satisfaction with treatment.

These activities will not, however, show whether or not four or six-month programs are any more or less effective in reducing solvent abuse and other problems among the clientele. Outcome evaluations will be needed for this purpose.

It is therefore recommended that...

Outcome studies of YSAC programs be developed and implemented. These studies would involve the collection of standardized client intake data, including data on drug use, social function and cognitive impairment and standardized follow-up information at, say 3, 6, and 12 months after discharge.

Where appropriate and if resources permit, such evaluations should incorporate culturally relevant research tools and evaluation techniques (i.e., return to the research participant with their transcribed interview to account for possible cultural variances in the collection/release of information).

Guidelines for conducting such evaluations have been developed by the World Health Organization. These are available online

(www.who.int/substance_abuse/pubs Psychoactive_drugs.htm).

It is, however, important to note that outcome evaluations require additional resources and researchers with appropriate training. Some significant barriers to traditional evaluations in this area should also be recognized. They include: need for parental consent to conduct research involving minors; programs are generally located great distances from research centers; clients often live in remote communities and are thus

difficult to follow-up; programs are small but quite variable which limits the generalizability of results of any one study; and some programs are unstable and have a high staff turnover. Careful planning is therefore essential and it is imperative that YSAC directors and staff are involved in the planning process.

It is therefore recommended that...

YSAC directors, managers and others attend workshops on program evaluation to ensure support for any future evaluative projects.

It is therefore recommended that...

any changes to policies regarding program length need to be clearly communicated to the communities served by YSAC and its referring agencies. Health Canada may also need to approve these and any other changes depending on contracts with local service providers.

It is recommended that ...

Variations in YSAC programs and their clients and the communities they serve be recognized and respected. A “one size fits all” or standardized treatment model thus seems inappropriate.

It is recommended that...

YSAC programs continue and if necessary expand their community reintegration phases of treatment.

It is recommended that...

YSAC continue to keep as up-to-date as possible about progress in the field¹⁰ of youth solvent abuse in general and residential treatment in particular. One way to facilitate this is to continue participation in international activities.

¹⁰ In 2002 the National Institute for Drug Abuse (USA) awarded more than \$2 million to seven projects focusing on inhalant abuse. The areas were: the epidemiology of inhalant abuse; individual risk and protective factors related to the initiation of inhalant use; effects of maternal inhalant abuse on the developing fetus; health consequences of inhalant abuse. The investigators were: Ty Ridenuor, Washington University, Missouri, Inhalant Abuse and Dependence; Diana H. Fishbein, RTI, Research Triangle Park, North Carolina, Precursors, Insulators, and Consequences of Inhalant Use; Diana J. Walker, University of Chicago, A Model of Inhalant Abuse Using Inhalant Responders; Samuel J. Gately, Brookhaven National Laboratory, New York, Feto-Maternal Pharmacokinetics of Abused Inhalants; Ruth W. Edwards, Colorado State University, Colorado, Inhalant Use Among Rural Children: A Multicultural Study; Ho-Leung Fung, State University of New York at Buffalo, Toxicokinetics and Toxicodynamics of Nitrite Inhalants; and Matthew O. Howard, Washington University, Missouri, Neuropsychiatric Impairment in Adolescent Inhalant Abusers.

APPENDIX A**NNYSA Youth Solvent Abuse Treatment Centres**

Information in the following tables was abstracted from a national treatment database maintained by the National Native Alcohol and Drug Abuse Program. This was last updated in 2001.

NENOAYNI TREATMENT CENTRE SOCIETY

Youth and Family Inhalant Program
P. O. Box 2529
Williams Lake, B.C.V2G 4P2

Director: Bruce Mack
Phone: (250) 989-0301
Fax: (250) 989-0307

NUMBER OF OUTPATIENT BEDS

Health Canada Funded: 10 + 2 beds for family members

SPECIFIC NUMBER OF BEDS FOR: NOT CO-ED

Males Yes No
Females Yes No

LANGUAGES OFFERED

First Nations (Shuswap, Carrier, Chilcotin) English French

TARGET GROUP

13 - 17

TREATMENT CYCLE

6 months Other (Specify)

INTAKE FREQUENCY

Continuous Once per cycle (as beds available)

TYPE OF TREATMENT PROGRAM

Youth Families (family members can attend last month of treatment) Other (Specify)

SPECIAL SERVICES

Detoxification Dual Addictions Follow-Up / Aftercare
 Intake Screening Interpretation Services Outpatient Services
 Walk-in & Crisis Services Other (Specify)

TREATMENT FOR SUBSTANCES

Solvent Abuse Other (Specify): Alcohol and other drugs

TREATMENT COMPONENTS

Assessment Alcohol & Other Drug Education Case Management
 Consultation with Professionals Cultural Activities Crisis Intervention
 Group Counselling Individual Aftercare & Planning Individual Counselling
 Individual Treatment Planning Intake Lifeskills/Personal Development
 Orientation Recreation Therapy Referral
 Reports and Record Keeping Other (Specify): Education: School On-site

IMPAIRMENTS THE CENTRE CAN ACCOMMODATE

Visual Impairment Hearing Impairment (minor severity) Learning Disability (minor severity)
 Physical Disability (minor severity) Developmental Disability (minor severity) Other (Specify)

DISABILITY NEEDS SERVICES

Wheelchair Access Literature in Braille Large Print Reading Material

Other (Specify)

EAGLE'S PATH YOUTH SOLVENT ABUSE CENTRE

Box 1658
North Battleford, Saskatchewan S9A 3W2
This Centre Temporarily Closed for Redevelopment.

WHITE BUFFALO YOUTH INHALANT TREATMENT CENTRE

Box 2500
Prince Albert, Saskatchewan S6V 7G3

Director: Deborah Dell
Phone: (306) 764-5250
Fax: (306) 764-5255
Email: wbuffalo@sk.sympatico
Website: www3.sk.sympatico.ca/wbuffalo

NUMBER OF OUTPATIENT BEDS

Health Canada Funded: 10

SPECIFIC NUMBER OF BEDS FOR: By Cycle

Males Yes No
Females Yes No

LANGUAGES OFFERED

First Nations (Cree) English French

TARGET GROUP

12-17

TREATMENT CYCLE

Minimum 6 months > Other (Specify) Cycles Start in January and July

INTAKE FREQUENCY

Continuous Once per cycle

TYPE OF TREATMENT PROGRAM

Adult Families Inmate Other (Specify)

SPECIAL SERVICES

Detoxification Dual Addictions Follow-Up / Aftercare
 Intake Screening Interpretation Services Outpatient Services
 Walk-in & Crisis Services Other (Specify)

TREATMENT FOR SUBSTANCES

Solvent Abuse Other (Specify)

TREATMENT COMPONENTS

Assessment Alcohol & Other Drug Education Case Management
 Consultation with Professionals Cultural Activities Crisis Intervention
 Group Counselling Individual Aftercare & Planning Individual Counselling
 Individual Treatment Planning Intake Lifeskills/Personal Development
 Orientation Recreation Therapy Referral
 Reports and Record Keeping Other (Specify)

IMPAIRMENTS THE CENTRE CAN ACCOMMODATE

X Visual Impairment X Hearing Impairment X Learning Disability
X Physical Disability X Developmental Disability _ Other (Specify)

DISABILITY NEEDS SERVICES

X Wheelchair Access _ Literature in Braille X Large Print Reading Material
_ Other (Specify)

WHISKEY JACK TREATMENT CENTRE

336 Thompson Drive
Thompson, Manitoba R8N 0C4

Director: Steven Clarke
Phone: (204) 359-8995
Fax: (204) 359-6497
Email: whiskyjack@digistar.mb.ca
Website: www.whiskyjack.mb.ca

NUMBER OF OUTPATIENT BEDS

Health Canada Funded: 22

SPECIFIC NUMBER OF BEDS FOR

Males _ Yes X No
Females _ Yes X No

LANGUAGES OFFERED

X First Nations (Cree, Ojibway) X English _ French

TARGET GROUP

X 11-17

TREATMENT CYCLE

X Minimum 6 months _ Other (Specify):

INTAKE FREQUENCY

X Continuous _ Once per cycle _ Other (Specify)

TYPE OF TREATMENT PROGRAM

X Youth _ Families (Family Therapy) _ Inmate _ Other (Specify)

SPECIAL SERVICES

X Detoxification X Dual Addictions X Follow-Up / Aftercare
X Intake Screening _ Interpretation Services _ Outpatient Services
_ Walk-in & Crisis Services _ Other (Specify)

TREATMENT FOR SUBSTANCES

X Solvent Abuse _ Other (Specify) X Drugs & Alcohol

TREATMENT COMPONENTS

X Assessment X Alcohol & Other Drug Education X Case Management
X Consultation with Professionals X Cultural Activities X Crisis Intervention
X Group Counselling X Individual Aftercare & Planning X Individual Counselling
X Individual Treatment Planning X Intake X Lifeskills/Personal Development
X Orientation X Recreation Therapy X Referral
X Reports and Record Keeping X Other (Specify) Anger Management

IMPAIRMENTS THE CENTRE CAN ACCOMMODATE

X Visual Impairment _ Hearing Impairment X Learning Disability
_ Physical Disability X Developmental Disability _ Other (Specify)

DISABILITY NEEDS SERVICES

X Wheelchair Access _ Literature in Braille X Large Print Reading Material
_ Other (Specify)

NIMKEE NUPIGAWAGAN HEALING CENTRE

R. R. #1
Muncey, Ontario N0L 1Y0

Director: Carol Hopkins
Phone: (519) 264-2277
Toll free: 888-685-9862
Fax: (519) 264-1552
Email: nimkee@netrover.com

NUMBER OF OUTPATIENT BEDS

Health Canada Funded: 12

SPECIFIC NUMBER OF BEDS FOR

Males X Yes _ No
Females X Yes _ No (By Cycles)

LANGUAGES OFFERED

X First Nations (Ojibway, Cree) X English _ French

TARGET GROUP

X 12-17

TREATMENT CYCLE

X Minimum 6 months _ Other (Specify):

INTAKE FREQUENCY

X Continuous _ Once per cycle X Other (male-July, female-January)

TYPE OF TREATMENT PROGRAM

X Youth X Families _ Inmate X Outpatient, Day Treatment Cultural Based

SPECIAL SERVICES

_ Detoxification X Dual Addictions X Follow-Up / Aftercare
X Intake Screening _ Interpretation Services X Outpatient Services
_ Walk-in & Crisis Services X Other (Specify) (Day Treatment)

TREATMENT FOR SUBSTANCES

X Solvent Abuse _ Other (Specify)

TREATMENT COMPONENTS

X Assessment X Alcohol & Other Drug Education X Case Management
X Consultation with Professionals X Cultural Activities X Crisis Intervention
X Group Counselling X Individual Aftercare & Planning X Individual Counselling
X Individual Treatment Planning X Intake X Lifeskills/Personal Development
X Orientation X Recreation Therapy X Referral
X Reports and Record Keeping _ Other (Specify)

IMPAIRMENTS THE CENTRE CAN ACCOMMODATE

X Visual Impairment (Minor severity) _ Hearing Impairment _ Learning Disability
_ Physical Disability _ Developmental Disability _ Other (Specify)

DISABILITY NEEDS SERVICES

X Wheelchair Access _ Literature in Braille X Large Print Reading Materia (can develop)
_ Other (Specify)

KA-NA-CHI-HIH SOLVENT ABUSE TREATMENT CENTRE

580 North Algoma Street, Box 2930
Thunder Bay, Ontario P7B 5G4

Director: Vincent Simon
Treatment Manager: Alice Sabourin
Phone: (807) 346-1670
Fax: (807) 346-1671
Email: vsimon@kanachihih.net
Website: www.kanachihih.ca

NUMBER OF OUTPATIENT BEDS

Health Canada Funded: 12

SPECIFIC NUMBER OF BEDS FOR

Males X Yes 12+ _ No
Females X Yes _ No

LANGUAGES OFFERED

X First Nations (Oji-Cree, Ojibway, Cree) X English _ French

TARGET GROUP

X 16-25 (Canadian First Nation Communities)

TREATMENT CYCLE

_ Minimum 6 months X Other (Specify): 2 years

INTAKE FREQUENCY

X Continuous _ Once per cycle _ Other (Specify)

TYPE OF TREATMENT PROGRAM

X Youth X Families (Family Counselling - Short period of time) _ Other (Specify)

SPECIAL SERVICES

X Detoxification X Dual Addictions X Follow-Up / Aftercare
X Intake Screening _ Interpretation Services _ Outpatient Services
_ Walk-in & Crisis Services _ Other (Specify)

TREATMENT FOR SUBSTANCES

X Solvent Abuse _ Other (Specify)

TREATMENT COMPONENTS

X Assessment X Alcohol & Other Drug Education (Secondary) X Case Management
X Consultation with Professionals X Cultural Activities (Traditional) X Crisis Intervention
X Group Counselling X Individual Aftercare & Planning X Individual Counselling
X Individual Treatment Planning X Intake X Lifeskills/Personal Development
X Orientation X Recreation Therapy X Referral
X Reports and Record Keeping _ Other (Specify)

IMPAIRMENTS THE CENTRE CAN ACCOMMODATE

X Visual Impairment X Hearing Impairment X Learning Disability
X Physical Disability _ Developmental Disability _ Other (Specify)

DISABILITY NEEDS SERVICES

Wheelchair Access Literature in Braille Large Print Reading Material
 Other (Specify)

WALGWAN - FIRST NATIONS YOUTH REHABILITATION CENTRE

Box 1009
Gesgapegiag, Quebec G0C 1Y0

Director: Josée Quesnel
Phone: (418) 759-3006
Fax: (418) 759-3064
Email: fnyrc@globetrotter.net

NUMBER OF OUTPATIENT BEDS

Health Canada Funded: 12

SPECIFIC NUMBER OF BEDS FOR: Open

Males Yes No
Females Yes No

LANGUAGES OFFERED

First Nations (Mic Mac) English French

TARGET GROUP

12-17

TREATMENT CYCLE

Minimum 6 months Other (Specify): Three to six months, with possible extension with proper approval from referral agency

INTAKE FREQUENCY

Continuous Once per cycle Other (Specify)

TYPE OF TREATMENT PROGRAM

Youth Families Services (at the end of youth treatment) Inmate Other (Specify)

SPECIAL SERVICES

Detoxification Dual Addictions Follow-Up / Aftercare
 Intake Screening Interpretation Services Outreach Services
 Walk-in & Crisis Services Other (Specify)

TREATMENT FOR SUBSTANCES

Solvent Abuse Other (Specify) and other solvent drugs

TREATMENT COMPONENTS

Assessment Alcohol & Other Drug Education (Secondary) Case Management
 Consultation with Professionals Cultural Activities Crisis Intervention (Traditional)
 Group Counselling Individual Aftercare & Planning Individual Counselling
 Individual Treatment Planning Intake Lifeskills/Personal Development
 Orientation Recreation Therapy Referral
 Reports and Record Keeping Other (Specify)

IMPAIRMENTS THE CENTRE CAN ACCOMMODATE

Visual Impairment Hearing Impairment Learning Disability
 Physical Disability Developmental Disability Other (Specify)

DISABILITY NEEDS SERVICES

Wheelchair Access Literature in Braille Large Print Reading Material
 Other (Specify)

CHARLES J. ANDREW RESTORATION CENTRE

P.O. Box 109
Sheshatshiu, Labrador A0P 1M0

Executive Director: John Graham
Phone: (709) 497-8995
Fax: (709) 497-8993
Email: johngraham@cjay.org
Website: www.cjay.org

NUMBER OF OUTPATIENT BEDS

Health Canada Funded: 12

SPECIFIC NUMBER OF BEDS FOR

Males Yes (6) No
Females Yes (6) No

LANGUAGES OFFERED

First Nations (Innu/Inuit) English French

TARGET GROUP

12-18

TREATMENT CYCLE

4-6 months Other (Specify):

INTAKE FREQUENCY

Continuous Once per cycle

TYPE OF TREATMENT PROGRAM

Youth Families (family involvement will be added) Other (Specify)

SPECIAL SERVICES

Detoxification Dual Addictions Follow-Up / Aftercare
 Intake Screening Interpretation Services Outpatient Services
 Walk-in & Crisis Services Other (Specify) (Land Based Treatment Cycles)

TREATMENT FOR SUBSTANCES

Solvent Abuse Other (Specify) Alcohol and other drugs

TREATMENT COMPONENTS

Assessment Alcohol & Other Drug Education Case Management
 Consultation with Professionals Cultural Activities Crisis Intervention
 Group Counselling Individual Aftercare & Planning Individual Counselling
 Individual Treatment Planning Intake Lifeskills/Personal Development
 Orientation Recreation Therapy Referral
 Reports and Record Keeping Other (Specify) Education: School On-site

IMPAIRMENTS THE CENTRE CAN ACCOMMODATE

Visual Impairment Hearing Impairment Learning Disability (minor severity)
 Physical Disability (minor severity) Developmental Disability (minor severity) Other (Specify)

DISABILITY NEEDS SERVICES

Wheelchair Access Literature in Braille Large Print Reading Material
 Other (Specify)

* This centre currently has no clients as it undergoes redevelopment.

WHITE SWAN TREATMENT CENTRES

Box 25
Kinuso, Alberta T0G 1K0

Director: Connie Forbister
Phone: (780) 775-2555
Fax: (780) 775-2552
Email: chacon@telusplanet.net

NUMBER OF OUTPATIENT BEDS

Health Canada Funded: 12 (in two Separate Centres)

SPECIFIC NUMBER OF BEDS FOR

Males Yes No
Females Yes No

LANGUAGES OFFERED

First Nations (Cree) English French

TARGET GROUP

12-17 (Possibly other age ranges)

TREATMENT CYCLE

4-6 months Other (Specify)

INTAKE FREQUENCY

Continuous Once per cycle

TYPE OF TREATMENT PROGRAM

Youth Families (family programming will occur outside residence) Other (Specify)

SPECIAL SERVICES

Detoxification Dual Addictions Follow-Up / Aftercare
 Intake Screening Interpretation Services Outpatient Services
 Walk-in & Crisis Services Other (Specify)

TREATMENT FOR SUBSTANCES

Solvent Abuse Other (Specify)

TREATMENT COMPONENTS

Assessment Alcohol & Other Drug Education Case Management
 Consultation with Professionals Cultural Activities Crisis Intervention
 Group Counselling Individual Aftercare & Planning Individual Counselling
 Individual Treatment Planning Intake Lifeskills/Personal Development
 Orientation Recreation Therapy Referral
 Reports and Record Keeping Other (Specify): Education: School Close By

IMPAIRMENTS THE CENTRE CAN ACCOMMODATE

Visual Impairment Hearing Impairment (minor severity) Learning Disability (minor severity)
 Physical Disability (minor severity) Developmental Disability (minor severity) Other (Specify)

DISABILITY NEEDS SERVICES

Wheelchair Access Literature in Braille Large Print Reading Material

_ Other (Specify)

APPENDIX B**Databases Searched and Search Terms**

Database: CORK				
http://www.projectcork.org/database_search/				
The CORK database includes over 51,000 items on substance abuse, indexed by over 400 terms. These are primarily from the professional literature and include journal articles, books, book chapters, and reports. The database is updated quarterly.				
Term Searched &	Term Searched &	Term Searched	Search Results (# of records/documents)	Notes
Youth (ab)	Solvent abuse (ab)	Residential treatment (ab)	0	Database not v suited for mult search terms
Solvent abuse (ab)	Treatment (ab)		1	
Solvent (ab)	Abuse (ab)		40	
Adolescent (ab)	Treatment (ab)		534	
Treatment (su)	Adolescent (ab)		165	
Treatment (ab)	Adolescent (ab)	Year = 2002	52	
Aboriginal (ab)	Residential treatment (ab)		9	

Database: ETOH				
ETOH's scope reflects the multidisciplinary nature of the alcohol research field. The range of subject areas contained in ETOH include medicine, biochemistry, psychology, psychiatry, treatment, epidemiology, sociology, anthropology, prevention, education, accidents and safety, criminal justice, legislation, health services research and public policy				
Term Searched &	Term Searched &	Term Searched	Search Results (# of records/documents)	Notes
Length of stay (de)			306	
Length of stay (de)	Sniffing (ke)		0	
Length of stay (de)	Inhalant (ke)		0	
Sniffing (de)			18	
Nasal administration (de)			4	
Length of stay (ab)	Youth (de)		3	
Length of stay (ab)	Adolescent (de)		15	
Length of stay (ab)	Compliance (de)		10	
Length of stay (ab)	Dropout (de)		13	
Length of stay (ab)	Residential treatment (de)		7	
Inhaled substance (de)			119	

Database: ETOH				
ETOH's scope reflects the multidisciplinary nature of the alcohol research field. The range of subject areas contained in ETOH include medicine, biochemistry, psychology, psychiatry, treatment, epidemiology, sociology, anthropology, prevention, education, accidents and safety, criminal justice, legislation, health services research and public policy				
Term Searched &	Term Searched &	Term Searched	Search Results (# of records/documents)	Notes
Inhalation (de)			110	
Inhalation (de)	Length of stay (ab)		0	
Inhaled substance (de)	Length of stay (ab)		0	
Solvents (all)			278	
Solvents (all)	Length of stay (ab)		0	
Solvents (all)	Residential (ab)		0	
Solvents (all)	Length of stay (de)		0	
Adolescent (de)	Solvent (de)	Residential treatment (ab)	0	
Adolescent (de)	Solvent (ab)	Residential treatment (de)	0	
Program length (ab)	Treatment (de)		0	
Time in program (ab)	Treatment (de)		5	
Substance abuse (ab)	Treatment (de)		1	
Adolescent (de)	Treatment (de)	Substance abuse (ab)	47	
Adolescent (de)	Residential treatment (ab)		52	
Native (de)	Residential treatment (ab)		6	

Database: IDA (Information about Drugs and Alcohol) http://www.health.org/dbases/search.aspx?db=1				
IDA contains scientific literature relating to alcohol and substance abuse prevention and sociological issues.				
Term Searched &	Term Searched &	Term Searched	Search Results (# of records/documents)	Notes
Length of stay (ke)			51	
Youth (ab)	Solvent abuse (ab)	Residential treatment (ab)	5442	Search results only somewhat related to search query
Youth (ab)	Substance abuse (ab)	Residential treatment (ab)	2804	Search results only somewhat related to search query

Database: CCSADOCS				
Contains bibliographic description for all documents and other media housed in the National Clearinghouse on Substance Abuse, with the exception of periodical records.				
Term Searched &	Term Searched &	Term Searched	Search Results (# of records/documents)	Notes
Adolescents (de)	Inhalants/inhalation/sniffing /solvent abuse (de)	Residential treatment (de)	0	
Solvent abuse (de)			77	
Inhalants (de)			62	
Sniffing (de)			26	
Inhalation (de)			26	
Inhalants/inhalation/inhalation passive/solvent abuse (de)			191	
Inhalants/inhalation/inhalation passive/solvent abuse (de)	Youth/adolescents (de)		28	
Inhalants/inhalation/inhalation passive/solvent abuse (de)	Youth/adolescents (de)	Residential treatment (de)	0	
Inhalants/inhalation/inhalation passive/solvent abuse (de)	Youth/adolescents (de)	Risk factors (de)	7	
Inhalants/inhalation/inhalation passive/solvent abuse (de)	Youth/adolescents (de)	Treatment (de)	26	
Inhalants/inhalation/inhalation passive/solvent abuse (de)	Youth/adolescents (de)	Aboriginal groups (de)	24	
Solvent abuse (de)	Treatment (de)		17	
Youth/adolescent (de)	Substance abuse (de)	Residential treatment (de)	0	
Youth/adolescent	Treatment		56	
Youth/adolescent	Residential treatment		3	
Aboriginal	Residential treatment		2	

Database: Ingenta				
Ingenta is a popular source for searching journals for bibliographic data. The database provides access to more than 26,000 academic and professional publications covering a wide range of subjects including 5,400+ full-text online journals.				
Term Searched &	Term Searched &	Term Searched	Search Results (# of records/documents)	Notes
Length of stay (all)	Outcomes (all)		271	Majority of results relate to medicine field not addiction

Database: Ingenta				
Ingenta is a popular source for searching journals for bibliographic data. The database provides access to more than 26,000 academic and professional publications covering a wide range of subjects including 5,400+ full-text online journals.				
Term Searched &	Term Searched &	Term Searched	Search Results (# of records/documents)	Notes
				field
Length of stay (all)	Client behavior (all)		0	
Length of stay (all)	Addiction		11	
Length of stay (all)	Risk factors (all)	Addiction	0	
Length of stay (all)	Risk factors (all)	Substance	1	
Length of stay (all)	Risk factors (all)		78	Majority of results relate to medical field not addiction field
Length of stay (all)	Program evaluation (all)		2	
Length of stay (all)	Delivery model (all)		0	
Length of stay (all)	Model (all)		117	
Length of stay (all)	Dropout (all)		3	
Length of stay (all)	Compliance (all)		17	
Length of stay (all)	Residential (all)		31	
Length of stay (all)	Residential treatment (all)		33	
Length of stay (all)	Adolescent (all)		9	
Length of stay (all)	Youth (all)		1	
Length of stay (all)	Inhaled substance (all)		0	
Length of stay (all)	Inhalants (all)		0	
Length of stay (all)	Solvents (all)		0	
Length of stay (all)	Substance abuse (all)		1878	Scanned search results for articles relating to project
Solvent abuse (all)			29	
Youth (all)	Solvent abuse (all)	Residential treatment (all)	0	
Adolescents (all)	Sniffing (all)	Treatment (all)	1	
Solvent abuse (all)	Treatment (all)		1	
Inhalant abuse (all)	Treatment (all)		1	
Youth (all)	Substance abuse (all)	Residential treatment (all)	1	
Youth (all)	Residential		20	

Database: Ingenta				
Ingenta is a popular source for searching journals for bibliographic data. The database provides access to more than 26,000 academic and professional publications covering a wide range of subjects including 5,400+ full-text online journals.				
Term Searched &	Term Searched &	Term Searched	Search Results (# of records/documents)	Notes
	treatment (all)			
Aboriginal (all)	Residential treatment (all)		1	
Indian (all)	Residential treatment (all)		1	Used term "Ind" (more common used in United States) in attempt to broaden search

Database: PsycINFO (includes search of Social Work Abstracts database)				
http://www.apa.org/psycinfo/products/psycinfo.html http://www.naswpress.org/publications/journals/abstracts/swabintro.html				
The PsycINFO database contains citations with abstracts to journal articles, books, and book chapters and dissertations in all areas of psychology and the behavioral sciences. Topics include experimental psychology, developmental psychology, communications, social processes and issues, personality, psychological disorders, professional issues, applied psychology, educational psychology, behavioral literature in related fields such as law, medicine, and business.				
Social Work Abstracts database contains citations and abstracts to journal articles, dissertations, and material dealing with all areas of social work including the aged, child and family welfare, crime, health, poverty, substance abuse, social policy, and methodology.				
Term Searched &	Term Searched &	Term Searched	Search Results (# of records/documents)	Notes
Solvent abuse (ab)	Length of stay (ab)		0	
Length of stay (ab)			1696	
Length of stay (ab)	Inhalants (ab)		0	
Length of stay (ab)	Substance abuse (ab)		77	
Treatment outcomes (ab)	Adolescents (ab)		61	
Youth (all)	Solvent abuse (all)	Residential treatment (all)	0	
Solvent abuse (all)	Treatment (all)		18	
Inhalant abuse (de)			214	
Inhalant abuse (de)	Treatment (de)		5	
Youth (all)	Substance (all)	Residential treatment (all)	0	
Youth (all)	Residential treatment (all)		669	

Database: PsycINFO (includes search of Social Work Abstracts database)				
Adolescent (de)	Residential treatment (all)		72	
Aboriginal (all)	Residential treatment (all)		0	

Database: Social Sciences FT http://www.hwwilson.com/newdds/s7.htm				
A database which contains citations to journal articles and full text to selected journal articles in all areas of social sciences: Addiction Studies, Anthropology, Area Studies, Community Health & Medical Care, Corrections, Criminal Justice, Criminology, Economics, Environmental Studies, Ethics, Family Studies, Gender Studies, Geography, Gerontology, International Relations, Law, Minority Studies, Planning & Public Administration, Policy Sciences, Political Science, Psychiatry, Psychology, Public Welfare, Social Work, Sociology, Urban Studies. Recommended for general undergraduate research since it covers core journal titles.				
Term Searched &	Term Searched &	Term Searched	Search Results (# of records/documents)	Notes
Length of stay (all)			2991	Search results using (all) fields gathered results that were not relevant
Length of stay (all)	Solvent abuse (all)		11	
Length of stay (all)	Inhalants (all)		9	
Length of stay (all)	Substance abuse (all)		428	
Length of stay (all)	Adolescents (all)		148	
Length of stay (all)	Adolescents (all)	Treatment (all)	109	
Length of stay (ke)			149	
Length of stay (ke)	Substance abuse (ke)		12	
Length of stay (ke)	Adolescents (de)		29	
Adolescent (ab)	Solvent abuse (ab)	Residential treatment (ab)	1	
Solvent abuse (ab)	Treatment (ab)		2	
Adolescent (all)	Substance abuse (all)	Residential treatment (all)	276	
Adolescent (ab)	Substance abuse	Residential	6	

Database: Social Sciences FT http://www.hwwilson.com/newdds/s7.htm				
A database which contains citations to journal articles and full text to selected journal articles in all areas of social sciences: Addiction Studies, Anthropology, Area Studies, Community Health & Medical Care, Corrections, Criminal Justice, Criminology, Economics, Environmental Studies, Ethics, Family Studies, Gender Studies, Geography, Gerontology, International Relations, Law, Minority Studies, Planning & Public Administration, Policy Sciences, Political Science, Psychiatry, Psychology, Public Welfare, Social Work, Sociology, Urban Studies. Recommended for general undergraduate research since it covers core journal titles.				
Term Searched &	Term Searched &	Term Searched	Search Results (# of records/documents)	Notes
	(ab)	treatment (ab)		
Adolescent (all)	Residential treatment (all)		599	
Adolescent (ab)	Residential treatment (ab)		55	
Aboriginal (ab)	Residential treatment (ab)		2	
Aboriginal (all)	Residential treatment (all)		67	
Indian (all)	Residential treatment (all)		243	
Indian (ab)	Residential treatment (all)		4	

Database: Social Services Abstracts and Sociological Abstracts http://www.csa.com/csa/factsheets/socserv.shtml http://www.csa.com/detailsV5/socioabs.html				
Social Services Abstracts provides bibliographic coverage of current research focused on social work, human services, and related areas, including social welfare, social policy, and community development. The database abstracts and indexes over 1,500 serials publications and includes abstracts of journal articles and dissertations, and citations to book reviews.				
Sociological Abstracts Database is a primary resource for accessing the latest research sponsored in sociology and related disciplines in the social and behavioural sciences. The database draws information from an international selection of over 2,600 journals and other serials publications, plus conference papers, books, and dissertations. Records added after 1974 contain in-depth and non-evaluative abstracts of journal articles.				
Term Searched &	Term Searched &	Term Searched	Search Results (# of records/documents)	Notes
Length of stay	Adolescents		17	

Database: **Social Services Abstracts** and **Sociological Abstracts**

<http://www.csa.com/csa/factsheets/socserv.shtml>

<http://www.csa.com/detailsV5/socioabs.html>

Social Services Abstracts provides bibliographic coverage of current research focused on social work, human services, and related areas, including social welfare, social policy, and community development. The database abstracts and indexes over 1,500 serials publications and includes abstracts of journal articles and dissertations, and citations to book reviews.

Sociological Abstracts Database is a primary resource for accessing the latest research sponsored in sociology and related disciplines in the social and behavioural sciences. The database draws information from an international selection of over 2,600 journals and other serials publications, plus conference papers, books, and dissertations. Records added after 1974 contain in-depth and non-evaluative abstracts of journal articles.

Term Searched &	Term Searched &	Term Searched	Search Results (# of records/documents)	Notes
(ke)	(ke)			
Length of stay (ke)	Youth (ke)		11	
Length of stay (ke)	Dropout (ke)		0	
Client stay (all)	Residential treatment (all)		0	
Length of stay (ke)	Substance abuse (ke)		11	
Adolescent (all)	Solvent abuse (all)	Residential treatment (all)	0	
Adolescent (all)	Solvent (all)	Residential treatment (all)	0	
Adolescent (all)	Inhalant (all)	Residential treatment (all)	0	
Adolescent (all)	Solvent (all)	Treatment (all)	8	
Solvent abuse (ab)	Treatment (ab)		0	
Solvent abuse (all)	Treatment (all)		0	
Adolescent (all)	Substance abuse (all)	Residential treatment (all)	24	
Adolescent (all)	Residential treatment (all)		530	
Adolescent (ab)	Residential treatment (ab)		94	
Adolescent	Residential	Year = 1998	34	

Database: Social Services Abstracts and Sociological Abstracts				
http://www.csa.com/csa/factsheets/socserv.shtml http://www.csa.com/detailsV5/socioabs.html				
<p>Social Services Abstracts provides bibliographic coverage of current research focused on social work, human services, and related areas, including social welfare, social policy, and community development. The database abstracts and indexes over 1,500 serials publications and includes abstracts of journal articles and dissertations, and citations to book reviews.</p> <p>Sociological Abstracts Database is a primary resource for accessing the latest research sponsored in sociology and related disciplines in the social and behavioural sciences. The database draws information from an international selection of over 2,600 journals and other serials publications, plus conference papers, books, and dissertations. Records added after 1974 contain in-depth and non-evaluative abstracts of journal articles.</p>				
Term Searched &	Term Searched &	Term Searched	Search Results (# of records/documents)	Notes
(ab)	treatment (ab)	to 2003		
Aboriginal (all)	Residential treatment (all)		0	
Indian (all)	Residential treatment (all)		7	Used term "Indian" (more commonly used in United States) in attempt to broaden search

Database: Web of Science				
http://www.isinet.com/isi/products/citation/wos/index.html				
<p><i>Web of Science</i> provides seamless access to the <i>Science Citation Expanded</i>[®], <i>Social Sciences Citation Index</i>[®], and <i>Arts & Humanities Citation Index</i>[™]. It enables users to search current and retrospective multidisciplinary information from approximately 8,500 of the most prestigious, high impact research journals in the world.</p>				
Term Searched &	Term Searched &	Term Searched	Search Results (# of records/documents)	Notes
Solvent abuse (ke)			150	
Length of stay (ke)	Solvent abuse (ke)		88	
Length of stay (ke)	Solvent abuse (ke)	Adolescents (ke)	7	

Database: Web of Science				
Adolescents (ke)	Solvent abuse (ke)	Residential treatment (ke)	1	
Solvent abuse (ke)	Treatment (ke)		9	
Solvent abuse (ke)	Adolescents (ke)		21	
Adolescents (ke)	Substance abuse (ke)	Residential treatment (ke)	16	
Adolescents (ke)	Residential treatment (ke)		146	
Aboriginal (ke)	Residential treatment (ke)		0	
Indian (ke)	Residential treatment (ke)		3	Used term “Indian” (more commonly used in United States) in attempt to broaden search

APPENDIX C

INHALANT TREATMENT GUIDELINES POSTED ON THE WEBSITE OF THE US NATIONAL INHALANT PREVENTION COALITION

These guidelines were developed by inhalant abuse researchers and experts including Fred Beauvais, Ph.D., Angelo Bolea, Ph.D., Luis Formazarri, M.D., Mark Groves, MSW, Steve Riedel, M.S.ED. Richard Scatterday, M.D., Milton Tenenbein, M.D., and Pam Jumper-Thurman, Ph.D.,

BACKGROUND:

Most generic substance abuse treatment programs are not equipped to deal with the multiplicity, intensity and complexity of problems that the inhalant abuser presents. Chronic inhalant abuse causes many psychological and social problems. Because of the damage neurotoxic chemicals cause to the brain, it may be wise to consider the regular, chronic inhalant abuser as having a dual diagnosis of chemical dependency and mental illness. Many approaches and techniques used in typical alcohol and drug treatment apply but a host of other specific issues must also be addressed.

If inhalant abuse is suspected, a medical examination is required. During physical examination, several medical complications must be assessed such as: (1) central nervous system damage; (2) renal (kidney) and hepatic (liver) abnormalities; (3) lead poisoning; (4) the possibilities of cardiac arrhythmia and pulmonary (lung) distress; and (5) nutritional deficiencies.

Because chemicals are stored in the fatty tissue of the body, the inhalant abuser may experience residual effects for quite some time. This could include altered affect and dullness of intellectual functioning. Consequently, the detoxification period will need to be longer than the typical drug abuser - several weeks not days. Neurological impairment is usually present with the inhalant abuser. Determining whether these problems predate or are the result of inhalant abuse is difficult to decide. Nonetheless, it is important to assess the presence of any learning difficulties that may interfere with the treatment process or contributes to disruptive behavior. A thorough examination of the school records or any early neurological testing may be productive. Neurological or neuropsychological testing should be considered early in the treatment process. However, it is important to not confuse the effects of acute intoxication with more enduring damage. It is also important to repeat the testing in several months to assess improvement. It is not known conclusively whether neurological damage from inhalant abuse is reversible or not. However, anecdotal evidence from some treatment professionals indicates that dramatic improvement in functioning can occur over the course of several weeks in treatment.

A thorough assessment of family stability, structure and dynamics must be a major component of any treatment program addressing the inhalant abuser. Family involvement

is critically important. Treatment can be focused on therapeutic intervention with the family providing drug education, parenting and social bonding skills.

Alcohol and other drug abuse are common for siblings and parents of inhalant abusers. There is a high probability of poor communication, sadness and possible physical, emotional and psychological abuses occurring in the home. There is a need to assess and address identified issues. Additionally, treatment providers report a high level of sexual abuse among inhalant abusers.

The exploration of peer group dynamics is very important. For younger children, sniffing and huffing often occurs in groups. Treatment goals that are realistic can help the child break the bonds with their negative peer group and replace it with a more positive peer group. This is important for recovery and sobriety.

Treatment programs should be prepared to engage the inhalant abuser in an extended period of supportive care marked by abstinence from inhalants. Non-confrontation and an emphasis on developing basic life skills are recommended. Action therapies such as art, music, drumming, dance and activities that involve hand-eye are often beneficial. Therapeutic recreational activities that encourage multi-sensory action will help to assist to assist in recovery.

Initial interventions should be very brief (15 to 30 minute sessions), informal and concrete. Walking and talking sessions would probably result in the development of rapport and encourage interaction. The inhalant abuser's attention span and complexity of thinking are greatly reduced in the early stages of treatment. Thus, cognition should be continually assessed to decide their changing level of functioning.

The "typical" 28 day or current treatment stay is probably too short a time to realistically expect change. One of the reasons for this is the prolonged time that inhalants persist in the body. Treatment time is uncertain and typically requires many months. Intensive aftercare and follow up are essential to rebuild life skills and re-integrate the client with school, family and community.

DISCUSSION:

If treatment is suggested, McSherry (1988) stresses that mental health workers need to possess an understanding about all aspects of inhalant abuse to develop and apply effective treatment. Studies on solvent abuse find that treatment is difficult because most treatment centers apply alcohol and drug treatment techniques with the assumption that all chemical dependencies are similar and would respond to these modalities. Sniffers appear to have less reasoning and resistance power than alcoholics and other drug abusers due to interruptions in their thought process. Fomazzari (1988) notes that these deficiencies are generally reversible, depending upon the extent of damage. He also stresses that, generally, sniffers are not ready for therapy as we now apply it in the typical treatment setting for up to 30 days. The detoxification period in chronic solvent abusers

should be as long as possible. Several weeks of close observation are necessary for the brain of these young persons to be rid of the effect of these chemicals. The lack of effectiveness of long-term treatment is probably due to the lack of social and family support, being immersed too early in treatment programs and the reduced capacity of inhalant abusers to understand and cooperate in treatment and recovery. It is important to understand that inhalant abusers are often stigmatized, even by abusers of other drugs, making their participation and retention in a general drug treatment program very difficult and problematic.

Mason (1979) visited several treatment facilities to conduct a pilot study to assess the patterns of inhalant abuse and problems associated with treating inhalant abusers. The general impression from treatment staff interviewed was that most clients do not respond well to the programs. There was difficulty in getting clients and family members to keep their appointments. Consequently, they found more success when they went to the homes of the inhalant abusers to engage the client and family. Staff studied by Mason at the different sites generally felt that these youths: (1) were not motivated to participate in the treatment process; (2) were cognitively impaired; (3) had low self-esteem; (4) were immature; and (5) generally did not respond well to therapy and other more formalized treatment approaches. Staff agreed that group therapy in the clinical setting did not work with the inhalant abuse clients and they specifically avoided using confrontation techniques with inhalant abusers. Their general approach was an ad hoc assignment of specific counselors who got along better with these youth and participated with them more in individual counseling sessions. Because of the sniffers' low motivation level, recreational or activity therapy is needed to maintain an interest in the program. The need for changes in the peer group of the sniffer is crucial as is the need to maintain focus upon positive peer group influences through continued outpatient or aftercare efforts. Inhalant abusers experience higher dropout and expulsion rates than any other type of drug abuser (Mason, 1979). These rates are the result of the inhalant abusers being recalcitrant, erratic, uncooperative and occasionally exhibiting violent behaviors. This can be overcome with patience and consistent approaches. Most agencies involved with inhalant abusers do not seem to have a clear idea of the inhalant abuse problem and do not know how to develop an effective treatment approach targeted to this youthful and frequently disruptive clientele. Even though the therapeutic process should involve the family, many programs appear to be unsuccessful in getting families involved in the treatment programs.

Mason (1979) further stresses that intervention and referral must be based on some understanding of the inhalant abuser and their problems and needs. To serve the inhalant abuser, programs must be prepared to move out to the community and engage these youngsters in their natural settings. Workers must be trained to work with young inhalant abusers in the community, using the resources of youth clubs, recreational facilities, churches and schools. Treatment approaches must be coordinated to take advantage of all available resources in the community in order to attain a degree of success with the inhalant abuser.

The literature indicates that the clinical setting should be warm, open and non-threatening with space and time for informal socialization and recreation. Relapse is common among sniffers and recidivist behavior must be tolerated to some extent in order to keep them in the treatment program. The cognitive demands of the typical recovery model are often beyond the grasp of most inhalant abusing clients because their thinking is too concrete (i. e., here and now and simplistic logic concepts) which is typical for children and adolescents when their cognitive abilities are impaired. In addition, most solvent abusers do not consider themselves to be drug addicts. Because of the multiple problems present, the counselor must be a case manager who understands both behavioral therapy and developmental concepts. Much of the treatment entails endless case management ? linking the clients with such resources as medical, legal, psychiatric, court, educational and family services.

Treatment of the inhalant abuser often times can be frustrating and unrewarding. This is the result of the cognitive impairment that often accompanies the abuse of solvents. Rogers (1982) stresses that the foremost method of prevention is through early education of health professionals, teachers, parents, etc. so that they can spot the early danger signs and get expert help when necessary.

Based on empirical findings of a study conducted by an interdisciplinary committee on solvent abuse among children and young adults at a Reserve in Manitoba (Gooden, et al., 1986), the following recommendations are suggested regarding solvent abusers:

- A. There must be networking among the different agencies within the community including teachers, nurses, childcare workers and counselors and the treatment program.
- B. Treatment must be social in nature. Because sniffing is usually a group activity, treatment should include group therapy when the client is ready. Individual counseling should be available as well. Treatment should consist of weekly group meetings. Topics should include: (a) medical complications for use; (b) reasons for trying sniffing and maintaining sniffing should be explored; (c) ex-sniffers should be used to serve as positive role models; and (d) new recreational group activities should be developed and encouraged particularly at those times when sniffing occurs (after school, weekends, etc.).
- C. The program should require regular "checkups" to detect relapses. Encouraging the youths to be honest about "slip-up" by reassuring them they will not be removed from the group should they relapse may promote a desire to belong to the group. This would also ensure that members of the group develop trust ? a condition essential to effective therapy.
- D. Patient records, including histories, questionnaires, and monthly progress reports, should be carefully maintained and evaluated. A researcher should evaluate this data every six months to determine (a) which areas of the program need to be changed; (b) the

characteristics are of youths who relapse or drop out of treatment; and (c) the overall effectiveness of the treatment program. Inhalant abusers can be difficult to treat not only because of their cognitive impairments but also because of their tendency to be disruptive while in treatment. Such behavior may be related to impaired social skill and poor impulse control as a result of the inhalant abuse. It would appear that programs would experience more success with inhalant abusers if the abusers were assigned them to one or two staff members who would gain empirical experience dealing with the inhalant abusers. These staff can gauge any successes plus obtain a reputation as "experts" with inhalant abusers. Being more flexible and less rigid with inhalant abusers would be wise. The families of these inhalant abusers must obviously become involved in the treatment program to experience more success with this difficult clientele. Strategies must also be developed to address the peer group influences.

TREATMENT CONSIDERATIONS:

OUTREACH AND REFERRAL:

Inhalant abusers tend to be a "hidden" population; their use of inhalants tends to be undetected and rarely do abusers seek treatment. Too often inhalant use goes undetected because it just may not be on the "radar screen." For an inhalant referral to be effective, staff of the facility must carefully utilize assessment and intake procedures, be cognizant of the inherent dangers and complexity of inhalant abuse and have specific protocols in place for treatment. They must also develop relationships with medical practitioners to provide better overall care for these clients.

INTAKE AND ASSESSMENT:

Inhalant abusers often present with a wide variety of social, educational, physical and cognitive problems. There must, therefore, be an understanding of abuser characteristics to ensure that inhalant abuse information is elicited. The interviewer must have a sound understanding of the various products that can be used, how these products are used and why inhalants are attractive to users. Understanding patterns of abuse will facilitate a conversation with a client who may be reluctant and embarrassed to discuss his or her use or may not clearly remember episodes of use because of memory loss and/or cognitive impairment. The interviewer should also understand the attractions to inhalants (i. e., very quick acting; short duration; free or low cost; ease of availability; generally not prosecuted; difficult to test for; enjoyable high; often overlooked as a drug; etc.). Along with intake, thorough assessment must be conducted for cognitive functioning and neurological and physical damage caused by inhalant use.

Some inhalant abusers show profound levels of dysfunction and deterioration, but there is a great deal of variation in this. Physical damage needs to be evaluated early in the assessment process but other testing for cognitive and neurologic evaluation may be postponed until after detoxification. In some treatment populations, abusers have been found to have higher rates of victimization by physical and sexual abuse.

Treatment programs need to thoroughly assess the stability, structure, and dynamics of the family. If there is limited family support, if feasible, develop alternatives which may include consideration of foster care.

SPECIFIC INTAKE AND ASSESSMENT CONSIDERATIONS:

A. Determine extent, duration, range and context of inhalant products abused

A record of products which have been abused, approximate number and frequency of exposures, time interval (over period of months or years) of abuse, etc., can be important to subsequent medical/neurological screening. Preparing specific questions relating to inhalants will insure more accurate and complete information. It is not sufficient to ask, "Have you ever inhaled anything to get high?" This question may produce a positive answer from someone who has snorted cocaine or heroin. Asking if gas or glue was ever inhaled may not elicit sufficient information, as these two products are not representative of the range of abusable products. Ask about specific abusable substances, including gas and glue, but also spray paint, lighter fluid, nitrous oxide (whippets), "rush" (butyl nitrite), poppers (amyl nitrite), aerosol products, correction fluid, cleaners, and more. Add additional products depending on known trends in the area. It is also important to understand the context of how and why the person abuses inhalants: alone or with a group; to get high or to become unconscious; where and when he or she huffs.

B. Medical Screening

Persons with a significant history of inhalant abuse should be screened carefully. Depending on exposure, tests may be administered to ascertain levels of toxins in the body. It is necessary to delineate the extent of impairment of liver function, renal/kidney function, motor coordination, central nervous system dysfunction, lung dysfunction, cardiac arrhythmia, hearing loss, visual impairment, reduced sense of smell or touch.

C. Neurological tests

Brain damage (transitory or permanent) can occur as a result of even occasional inhalant abuse. A complete neurological workup can reveal neurological damage and helps pinpoint need for specific remediation.

D. Behavior/emotional patterns

Erratic and unstable behavior is often seen in chronic inhalant abusers. Some abusers become violent; others are unpredictable. Wide mood swings and impulsive behavior are commonly reported. Declining social skills have been reported among chronic inhalant abusers.

E. Cognitive history/testing

Brain damage or dysfunction must be suspected, due to anoxia, product toxicity and other causes. To document changes or areas of difficulty, a complete history should be taken. Relevant issues: major changes in school performance; short attention span; inability to concentrate, memory problems; declining range of vocabulary; sharp decrease in ability to communicate clearly; inability to process information.

F. Evaluation of other drug use

Use of alcohol and/or other drugs should be assessed.

G. Possession/access to abusable inhalant products

Ascertain the extent of the client's "collection" of abusable products and ease of accessibility to product at home, on the job and/or at school

H. Family history

Gather information about the structure, dynamics and stability of family life, along with family history of inhalant abuse. To be most productive, the family must be engaged in the rehabilitation process.

I. Peer group

Explore the dynamics of the individual's abuse of inhalant products. Most often this is a group activity, so the person needs to transition away from an inhalant-abusing peer group to a more positive peer group.

TREATMENT PROCESS

OVERVIEW:

Treatment must be specifically focused on inhalants. Research and practice have determined that "standard" alcohol and drug treatment is not appropriate or effective for inhalant abusers. In fact, many treatment facilities refuse to treat inhalant abusers, judging them to be "resistant to treatment."

Treatment staff should be knowledgeable about inhalant abuse and have realistic expectations for recovery. Counselors need to understand the unique aspects of the problem, including a slow rate of recovery and the very modest improvements that should be initially expected. Because many treatment professionals are not aware of the toxicity and lethality of inhalants (they are toxins, poisons, pollutants, and fire hazards) there needs to be provision for inhalant abuse prevention education.

When solvent abusing children are admitted for treatment they are distant and hard to reach. However, they are anxious to bond quickly to their peer group. Some treatment facilities have utilized this as a treatment opportunity and have developed a "peer patient advocate" system. Utilizing a peer who is further along in the treatment process provides the incoming youths with someone to "teach them the ropes" and give them support. The treatment staff should closely supervise this relationship.

Life skills issues need to be addressed: some abusers have started huffing as early as elementary school which, along with the neurological damage, can result in poorly developed life and academic skills. Take into account cognitive deficits by using briefer (20 minutes) and more concrete interventions.

Programs must allow for adequate detoxification: depending on length of use and product used, detoxification from the acute effects of solvents and gases may last for several weeks. During this time, program expectations may need to be reduced.

Family involvement in the treatment plan should include education about inhalants, removal of inhalants from the home, and the understanding that extra support and supervision that inhalant abusers and their families may need.

Aftercare planning is a critical component of any inhalant treatment plan and must take into account the special problems of inhalant abuse. This includes easy availability of inhalants, residual cognitive impairment, and poor social functioning. A school-based advocate/counselor should be included in the plan. As a practical and policy matter, ensure that inhalants are not accessible in the treatment program. Have a policy in place that to preclude the availability of such items as dry erase markers, nail polish and remover, typewriter correction fluid, solvent-based glues, aerosol products (such as deodorants, hair spray, shaving cream, cleaning products, and canned whipped cream). Be sure the custodial staff locks up chemicals and cleaning products.

SPECIFIC INHALANT TREATMENT CONSIDERATIONS:

A. Standard" substance abuse treatment alone is generally ineffective for inhalant abusers for these reasons:

- detoxification from poisonous chemicals must be accomplished prior to planning for treatment. (Groves, Beavers, Sharp and others state that because toxic chemicals remain in the body's fat cells, effects may linger for weeks or months, affecting cognitive functioning and ability to participate in treatment.)
- detoxification and treatment cannot be effectively accomplished within a 14 day, 21 day or 28 day model; providing for an extended length of stay, allowing for a minimum patient stay of 90 days that can be extended to 120, would be most beneficial for the patient (Reidel, et. al, 1998)

- "talk therapy" may not be appropriate for persons with neurological and/or cognitive dysfunction
- short attention span, poor impulse control and/or poor social skills not appropriate for group therapy
- group therapy may not be appropriate initially, as users of alcohol and other drugs are often reject or are contemptuous of inhalant abusers
- neurocognitive damage may impair decision-making skills

B. Detoxification, medical screening, and neurological screening must be initiated before a treatment plan can be constructed

C. Neurocognitive assessments should be performed to assess neurocognitive impairment and to develop an individual prescriptive neurocognitive rehabilitation program (the assessment should be repeated at discharge for outcome evaluation purposes)

D. Neurocognitive rehabilitation should be provided to those assessed as in the "impaired" range of neurocognitive functioning and to those assessed as in the "normal" range but who may have a specific impairment

E. An academic curriculum should be developed and be provided during the course of treatment which has the patient participating in school at individually assigned levels

F. A "peer patient advocate" system may be established to assist incoming patients but must be closely monitored by treatment staff

G. Team approach is imperative: medical, neurological, psychological, occupational, physical/motor rehabilitation, educational components

H. Where indicated, occupational and physical therapy must be included in a comprehensive treatment plan

I. As far as practical, access to inhalable substances must be eliminated or restricted

J. Aftercare planning is a critical component of any inhalant treatment plan and must take into account the special problems of inhalant abuse. This includes easy availability of inhalants, residual cognitive impairment, and poor social functioning. A school-based advocate or counselor should be included in the plan.

APPENDIX D

Description and Contact Information for WWW Search of Solvent Abuse Residential Treatment Centres

YOUTH RESIDENTIAL SOLVENT TREATMENT

1. *Our Home, Inc. Inhalant Abuse Treatment Program*
Huron, South Dakota USA

The Our Home, Inc. Inhalant Abuse Treatment Program closed approximately two years ago due to a funding shortage. It was a 90-day residential treatment program. Our Home, Inc. continues to offer residential treatment to youth substance abusers.

Treatment Philosophy and Services: Our Home, Inc. programs are based in the philosophy of holistic adolescent health; therefore, treatment must be responsive to the physical, emotional, cultural and spiritual strengths and needs of the individual. The program begins by assessing those needs with a physical examination and treatment team evaluation. Psychological testing is conducted as necessary to develop a proper course of treatment. All programs use peer group and individual counseling sessions within the highly structured services. Self-help formats include 12-Steps, Alateen, Alcoholics Anonymous and Narcotics Anonymous. The importance of family involvement is emphasized in the family education and counseling sessions offered. During treatment, youth are observed for unidentified, co-existing problems requiring further clinical assessment. Referral workers and other appropriate individuals receive regular progress reports outlining treatment status and any changes in the case plan. When a child leaves, Our Home, Inc. attempts to facilitate specialized transitional care and community-based aftercare services as needed.

Our Home, Inc. Inhalant Abuse Treatment Program:

The purpose of the Our Home, Inc. Inhalant Abuse Treatment Program was to challenge the problem of inhalant abuse by making a comprehensive treatment program available to affected youth. The project sought to “unlock the treatment doors to a population of moderate and severe drug users (inhalant abusers) whose treatment needs have been ignored at national and local levels.”

This second purpose was to develop an inhalant abuse treatment model that would address the wide range of social, psychological, academic, and neuropsychological deficits associated with inhalant abuse. Developing a program in the absence of other models also called for objectively measuring treatment outcomes as part of the model implementation process.

Evaluation:

(a) Test-retest

Objective treatment outcome data were obtained by test and retest procedures. A Halstead-Reitan Neuropsychological Test Battery (HRNTB) was administered to all patients at approximately the 14-day point. The Intermediate Booklet Category Test and Booklet Category Test were used as opposed to the electromechanical slide versions of the category tests. Through this battery, a Neurocognitive Deficit Score (NDS) was determined for each patient. The NDS reflected the extent of the neurocognitive impairment that each patient was experiencing at admission and discharge. The NDS for each patient population was tabulated and converted to a mean NDS for the total patient population. The difference between the intake and discharge NDS was derived and recorded as improved or regressed neurocognitive functioning. HRNTB norms require that subjects ages 14 and younger be considered “children,” and subjects ages 15 or older be considered “adults.” Data for each classification were separated by age group.

In addition to the two age groups, clients are also classified as “impaired” or “nonimpaired,” based on their NDS. The pretreatment and post-treatment NDS scores for each age group and diagnostic classification (impaired/nonimpaired) were also compared. These comparisons allowed the program to assess the differences in the response to treatment between and within the age and diagnostic groups. A Kaufman Test of Educational Achievement (K-TEA) was also administered at intake and discharge. The individual age-equivalent achievement results were converted into a mean achievement for the patient group. The results reflected the improved or regressed level of academic achievement. Data were handled so that results were presented for the two age groups.

Finally, the project reviewed patient functioning at 6 and 12 months after discharge. This follow-up collected subjective and anecdotal data regarding post-treatment functioning. Inhalant use, other alcohol and drug use, school attendance, legal contacts, and living arrangements were monitored. Data were collected by personal contact, by telephone interview, or in writing. Data were accepted from the patient, the parent/guardian, or the referral/aftercare worker.

(b) Objective Measures for Monitoring Outcomes

Our Home, Inc. sought to evaluate treatment outcomes objectively. Changes in patient neurocognitive functioning and academic achievement were selected as the most objective measures. More subjectively, routine data reflective of patient post-treatment functioning were pursued. Thus, questions about the benefits of treatment and the project were possibly considered. In summary, a variety of questions were evident around the issues of patient treatment readiness and receptiveness. Our Home, Inc. sought to address these questions by modifying the treatment protocol and evaluating objective treatment outcomes.

Source: <http://www.treatment.org/TAPS/TAP17/TAP17inhalant.html>

**2. Yukon-Kuskokwim Health Corporation
Bethel, Alaska**

Although YSAC is very familiar with the Yukon-Kuskokwim Health Corporation Inhalant Intervention and Treatment Program, it is important to reiterate due to its evaluative component.

Purpose, Goals and Objectives:

The purpose of this project is to address inhalant abuse among Native youth in Alaska.

The goals of the project are:

- Goal 1: Develop Alaska-wide networks for identification and treatment of inhalant abusers;
- Goal 2: Develop and disseminate information about inhalant abuse treatment;
- Goal 3: Design infrastructure supports and assist regional hub communities in development of community-based inhalant intervention capacity;
- Goal 4: Design and implement inhalant abuse treatment program; and,
- Goal 5: Design measurement systems.

Theoretical Model:

The project is based upon treatment models developed by Scot Prinz and utilized at the White Buffalo Treatment Center in Saskatchewan, which focuses on seeking wellness and spiritual connection as well as incorporating culture.

Services Provided:

Residential services in Bethel are provided along with outreach education, outpatient treatment referral and case management services as well as both local interventions as appropriate and a core service team providing assistance to other communities across the state.

EVALUATION - Strategy and Design:

The evaluation is culturally competent and utilizes a logic model and addresses implementation fidelity. There are outcome measures as well as a focus on evaluation of program effectiveness. The evaluation is self-adjusting treatment evaluation model (CSAT & Caliber Associates, 1999). The residential treatment evaluation is a quasi-experimental nonequivalent comparison or cohort group design with pre test and treatment outcome and repeated post-test measures. The outreach inhalant education component is evaluated through a one-group pre test post-test design. Multiple regression analysis may be utilized. There is also qualitative data collected from focus groups and key informant interviews and analyzed using NUDIST.

Evaluation Goals/Desired Results:

The evaluation goals are to examine the extent to which program goals and objectives are achieved. The desired results are implicit in the program goals and objectives and also stated in the evaluation questions that follow.

Evaluation Questions and Variables:

Evaluation questions include the following: (1) does the management structure provided clear roles and responsibilities for the collaborating regional agencies and clear accountability for providing services, (2) have appropriate linkages among the various child-serving agencies and systems been developed so that cases can receive multiple services in a coordinated manner, and (3) has a clear locus of responsibility been established to ensure that cases with multiple needs receive services from all relevant agencies. Interaction and association are examined, including distal and proximal variables. Three categories of variables are identified including ascribed, acquired, and treatment variables. Further, the following segment on instruments implies a listing of variables to be included. Additionally, other evaluation questions will include examining: existence of enhanced community services supporting local inhalant treatment, any significant increase in functioning after program participation, cost reduction and enhanced treatment by assessing children in their communities as opposed to distance treatment services, the role of family members in treatment, cost analysis for each program component, and comparison with untreated case costs for medical, justice and social service systems.

Instruments and Data Management:

At baseline (T1) and at discharge (T2), the following instruments are administered: medical screening, a Kaufman Assessment Battery for Children, the Conners Rating Scale (including parents' and teachers' scales), Child Behavior Checklist, Restrictiveness of Living Environments & Placement Stability Scale (revised), Child and Adolescent Functional Assessment Scale, Delinquency Survey & Substance Abuse Survey, Education Questionnaire, Behavioral & Emotional Rating Scale, Family Resources Scale, Family Assessment Device, and Caregiver Strain Questionnaire. There are also six, 12, and 18 month follow up measures after completion of treatment. Process data is recorded including an assessment of the treatment received. Those not completing treatment are interviewed and inhalant and other drug use patterns, school performance, family relationships, psychological factors, cognitive functioning, health status, and juvenile justice system involvement, and violence/abuse are considered. Data analysis includes descriptive statistics of client characteristics, pre- and post-treatment functioning, and interrelationships among treatment variables.

Source: http://www.csat-tce.com/Project_Descriptions/TCE2000/AK_Bethel12363BD402.pdf

Adult Residential Solvent Treatment

3. *Kickapoo Healing Grounds*

Although this is not a youth specific program, it offers a unique cultural approach for an inhalant treatment facility as it is strongly linked to the Kickapoo culture, whom it serves. It was not determined whether there was an evaluative component to the program.

The Kickapoo Traditional Tribe of Texas has been battling inhalant abuse for almost 25 years. The Kickapoo, who live on a 123-acre reservation near Eagle Pass, Texas, are extremely impoverished. The Kickapoo Healing Grounds is working to reverse the trend of inhalant addiction in the tribal population. The program was established in 1993.

The Healing Grounds program is staged in three phases of treatment that address the physical, mental and nutritional problems that accompany addiction. The treatment process lasts over a year, and many patients are admitted to the program 2 to 3 times before they can kick the habit.

Kickapoo tradition is an important factor in the treatment process. The center has de-emphasized clinical confrontation because it violates the Kickapoo view of harmony as a cultural ideal. Furthermore, treatment is complicated by kin relationships, which require varying degrees of deference and respect, and by the migrant worker lifestyle. Chronic users who have effectively dealt with their addiction are invited back into traditional activities that are central to the Kickapoo way of life.

Source: <http://www.inhalants.org>.

Culturally Specific Bush Programs

The Okonungegayin Solvent Abuse Program was located in Kenora, Ontario, c/o the Lake of the Woods District Hospital. The hospital sponsored a treatment program at a bush camp which was run entirely by traditional, Anishinaabeg medical-religious professionals. Not determined whether youth were accepted.

The Dry Out Camp for Sniffers, located near the Yalata Community, South Australia, is no longer in operation. However, its unique approach to treatment may be worth reviewing. It is youth specific.

The Injartnama Outstation, located in Hermannsberg, Australia, is of interest because it does not restrict the time a client may stay in treatment.

4. *Okonungegayin Solvent Abuse Program*

Okonungegayin was a solvent abuse treatment program that offered an alternative treatment approach for First Nations people. The program was 90 days in length and utilized traditional Anishinabe beliefs and cultural practices. It operated in partnership with Wabaseemoong Independent First Nations and the Lake of the Woods District Hospital, and was located approximately 50 kilometers north of Kenora, Ontario. The program was conducted out of a pristine wilderness setting, and facilities consisted of a main lodge, outhouses, log cabins, and client trailers. Literacy and leisure/recreation were two program components which complemented the holistic healing process. The Okonungegayin treatment program emphasized native cultural identification and spirituality. It also focused on structured and unstructured leisure programming.

Source: <http://www.lin.ca/resource/html/Vol25/v25n1a4.htm>

5. *Dry Out Camp for Sniffers*

The targeted drug was petrol. The objectives were to: reduce the misuse of volatile substances; reduce the risk of ‘sniffers’ sustaining injury or sickness caused by the misuse of volatile substances; increase young people’s self-esteem and self respect; minimize violence, crime and vandalism caused by persons intoxicated by petrol; promote positive peer support; and for young people to identify and pursue personal goals. Depending on the severity and the number of young people sniffing, Dry Out Camp could take up to 3-12 months. This could include short stays back in the community under strict supervision.

The project strategies were: known sniffers were taken out on camps away from the community to ‘dry out’ and enjoy alternative activities; the youths carried out and shared responsibilities to maintain the functioning of the Camp by cooking and cleaning up, making windbreaks and shelter to sleep in; activities were provided, including hunting, fishing, football, cricket and playing cards; cultural activities, which were very important, i.e., spending time with family and elders (sharing stories), making artifacts, paintings, and participating in ceremonies; good music, which was always in demand by the young people, was provided; informal counselling was provided to individuals as situations arose; group talks were carried out, with these talks being informal and rarely planned. The clients were individually consulted or advised if any problems arose with peer pressure; sometimes separating ‘ring leaders’, or boys from girls, was necessary. Consistent positive reinforcement on a one-to-one basis was necessary as a reminder of the client’s improvement in mental, physical and spiritual health. The Camp provided a drug-free environment in which the young people could overcome the substance abuse without pressures that may have existed in the community (detoxification).

6. Injartnama Outstation

Injartnama Outstation is a family-run residential outstation program for mostly Aboriginal clients. The length of the program is as per individual needs or as court directed. There are usually no limits placed on the amount of time clients can spend in the program.

The program operates from the five core principles of Aboriginal culture in terms of taking care of family, of self, of country, of culture and of spirit. It also incorporates the 12-step AA program. There is a building program to develop practical skills. It is based on therapeutic community principles.

The program is predominantly for Aboriginal people with alcohol and other substance misuse issues, including petrol.

APPENDIX E

Cover Letter for Australian Institute of Criminology Inhalant Use and Disorder Conference Survey

July 7, 2003

Dear Australian Institute of Criminology Inhalant Use and Disorder Conference Participant:

The National Youth Solvent Addiction Committee (YSAC) is a network of treatment centres in Canada committed to facilitating quality experiences for First Nations and Inuit youth who abuse solvents and their families. As a network, YSAC focuses on the development and documentation of best practices guidelines. While the challenge of providing the best care for young people never seems to diminish, the opportunities for creating new strategies continue to increase. Currently, YSAC's residential programs are six months in duration, and they are piloting a four-month program. At this stage of development, YSAC would like to collect as much information as possible to inform their design.

The Canadian Centre on Substance Abuse (CCSA) has been hired on a consultant basis to address three key issues for YSAC: (1) what others are doing in the field in terms of program length and length of client stay in a program, (2) general program design, focussing on alternatives to the six-month design, and (3) identification of youth risk factors and how they relate to type of treatment received (risks for the facility and the youth). The *Inhalant Use and Disorder Conference* is an optimal venue for YSAC to gather valuable international information from community experts. YSAC is very willing to share the results once they are compiled, as well as provide you with any information on their programs in Canada should you desire. If you would kindly take a few minutes to fill out the attached brief questionnaire, it will greatly assist YSAC in the further development of its residential treatment programs. Please be sure to include your contact information should you wish to receive the results of the survey and of course any information about YSAC.

Please return this questionnaire to Marianne James, the Inhalant Use and Disorder Conference organizer, upon its completion. Alternatively, you can send it to the attention of Dr. Colleen Anne Dell at the CCSA, 75 Albert Street, Suite 300, Ottawa, Ontario, K1P 5E7, Canada or you can e-mail your response to cdell@ccsa.ca.

Thank you in advance for your assistance.

Sincerely,

Colleen Anne Dell, PhD
Canadian Centre on Substance Abuse
Telephone: (613) 235-4048 ext. 235

APPENDIX F**Key Stakeholders and Experts providing verbal or written material for this project**

Stakeholder/expert	Position	Telephone or E-mail
Robin Dupuis	Former program manager Solvent Abuse program, Health Canada	613-952-1377
Clarence Nipinak	MSB consultant, Manitoba Region	204-983-3578
Valentino Tolchier	MSB consultant, Atlantic Region	902-426-6085
Bruce Mack	Director, Nenquaya Treatment Centre	250-989-0301
Antoine Archier	Treatment Manager, Nenquaya Treatment Centre	250-989-0301
Jim Myklehurst	Director, White Swan Treatment Centre	780-775-2555
Geraldine Atimoyoo	White Buffalo	306-764-5250
Carol Hopkins	Nimkee Nupi Gawagan Treatment Centre	519-264-2277
Vincent Simon	KaNaChiHih Treatment Centre	807-346-1670
Carol Forkner	Acting Director, Charles Andrews Youth Restoration Centre	709-497-8995
Josee Quesnel	Director, Walgwan Treatment Centre	418-759-3006
Linda Boudreau	Director, Poundmakers Adolescent Treatment Centre	780-645-1884
Beatrice Cayeentier	Director, O'C	403-989-2472
Tim Harrison	Director, Bosco Homes	980-963-3716
Henry Weiss	National Inhalant Abuse Prevention Centre	1-800-269-4237
Gloria Chaim	Former Head, Special Populations, Centre for Addiction and Mental Health Toronto	Now at Jean Tweed Centre, Toronto. 416-255-7359
Milton Tenenbein	Pediatrician, University of Manitoba	mtenenbein@hsc.mb.ca

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