Literature Review

Evaluation Strategies in
Aboriginal Substance Abuse Programs:
A Discussion

TABLE OF CONTENTS

I. STATISTICAL AND CONTEXTUAL OVERVIEW

Of all the manifestations of ill health that are seen in Aboriginal peoples, the reality of substance abuse may illustrate the most convincingly, the need for a convergence of the four components of well-being - physical, emotional, spiritual and mental - in ensuring the health of a community and a person. In Aboriginal tradition, the health and well-being of an individual flows, in large part, from the health and social make-up of the community.[1] This infers that not only must substance abuse be understood in terms of social behavior, but that its solutions lie in collective action of the communities.

Substance abuse has been described as a manifestation of 'alienation' of Aboriginal peoples, whereby their traditions and styles of life are significantly different from, and not accommodated by the patterns of Canadian society.[2] The results of the enormous cultural change such as that inflicted upon Aboriginal peoples by European invasion, are a cause of disorientation and anxiety which pervades the inner reaches of the human spirit.[3] Although a direct connection between cultural change and prevalence of substance abuse (and other forms of ill health) in scientifically validated terms is rare, studies have linked rates of alcoholism and violence in Aboriginal communities to the decline of traditional modes of living from environmental impacts such as that from mercury contamination and major hydroelectric development.[4] These observations, and the contemporary history of socio-economic conditions among Aboriginal people suggest that substance abuse is a coping strategy for poverty, unemployment, poor health, low educational levels, low or absent community economic development, and negative residential school experiences and other imposed actions which served to break apart families or relocate whole communities. In its final report, the Royal Commission on Aboriginal Peoples' (RCAP) identified the three dimensions of community health that need to be changed so that the health and well-being of Aboriginal people can be improved:

- poverty and social assistance
- shelter, water and sanitation facilities, both individual and community infrastructure
- environmental conditions, including pollution and land and habitat degeneration.[5]

Although the above theory of the psycho-social and economic origins of substance abuse is widely accepted, other suggested theories have been advanced, including that Aboriginal peoples have an inherent genetic and biological basis for alcohol addictions, or that the use of alcohol is a cultural-based attempt to seek "visions" in altered states of consciousness.[6] The effects of the introduction of alcohol by European explorers, fur traders and merchants have been described as similar to those from smallpox and other infectious diseases, in that Aboriginal people had no immunity to alcohol. In this context, immunity would have been afforded by social norms and experiences that would have provided protection against over-consumption.[7] Substance abuse then can flourish if there are no societal values that view such abuse as negative or destructive behavior, particularly if society is tolerant of the use of intoxicants.

Kim Scott's research has itemized the reasons that Aboriginal people have given for substance use or abuse. These include social pressure, use as a coping strategy, cultural loss, defiance, boredom, and the self-fulfilling prophecy that "drinking is Indian."[8] An alcohol and drug abuse study in Saskatchewan included consultation with NNADAP project staff on the subject of the causes and consequences of its abuse. The respondents ranked the following pre-determined factors in order of importance (most important to least important):

- lost cultural identity
- poverty and unemployment
- lack of social opportunities
- low education levels
- availability of the intoxicant
- lack of recreational opportunities
- peer group pressure, and
- family pressure.[9]

A large study on predictors of substance use among students in a small urban community in Manitoba found that the number of friends that adolescents reported as using drugs was the strongest predictor of substance use (alcohol, drugs, solvents) for both Aboriginal and non-Aboriginal students. Peer attitude also was a predictor of all types of substance abuse among Aboriginal students.[10]

Epidemiology

Social indicators comprise the main source of data from which researchers have described substance abuse and its effects. Of these, the most common indicators have been Aboriginal mortality and morbidity, specifically the high rates of death from injury and poisoning including suicide, and alcohol-related diagnoses and discharges. Other commonly cited social indicators include rates of incarceration and alcohol sales.

Surveys on alcohol and drug use are a more direct method of obtaining information in this area, however, published survey research rarely discusses the validity and reliability of the survey instruments used. Other limitations to survey data include poor response due to apathy or non-participation, western-Aboriginal cultural differences which complicate communications, data collection and interpretation, heterogenicity (of Aboriginal origins) in the grouping which makes up a survey sample, and and an overall lack of identification or participation of urban Aboriginal populations in national surveys.[11]

1. Alcohol Use

Alcohol consumption has been identified as a major problem in Aboriginal communities, both through research surveys and during the RCAP consultation process. A survey conducted in 57 First Nations communities in Manitoba in 1984-85 used a rating scale from "no problem" to "major problem" to rate mental health problems. Eighty-six percent of the communities rated alcohol abuse as a major or serious problem. Solvent abuse was reported as a major problem in 7% of these communities. An indication of the magnitude of social dysfunction in these communities was suggested by the high percentage of communities reporting other problems as a concern: anxiety (72% a major concern), general violence (70% major), spousal abuse (69% serious or major) and child abuse (51% serious or major).[12]

The results of the Manitoba survey was substantiated by the 1991 Aboriginal Peoples Survey which found that 73% of Aboriginal persons on reserves and settlements thought that alcohol abuse was a problem in their community. As well, family violence was a problem in 44%, drug abuse in 59% and suicide in 35% of these responses.[13]

An Ontario study using 1985-86 data quantified alcohol consumption in counties, and compared those counties with reserves to those without reserves.[14] Counties with reserves had an increased alcohol consumption rate compared to the remaining counties. Using regression analysis, the presence of reserves explained 25% of the variation in alcohol consumption in the province. A further 35% of the variation was explained when adding in socio-economic and demographic variables. There was a direct relationship between decreasing income level and alcohol consumption, as every extra $1,000 in income tax per return was correlated with a 0.3 litre reduction in absolute alcohol consumption.

The APS questioned Aboriginal people about their consumption of alcohol, and has provided interesting results, in that a high usage of alcohol was not reported. The survey which is based on self-reports has shown that a lower proportion of Aboriginal people than Canadians generally drink daily (2% Aboriginal versus 3% other Canadians) or weekly (35% Aboriginal versus 46% other Canadians). As well, abstinence is almost twice as common among Aboriginal people (15% Aboriginal versus 8% Canadian). Furthermore, the APS showed that alcohol consumption is highest among those with the most education and income, among men, and in the age groups younger than 55 years of age.[15] Similar results in which abstinence was more common among Aboriginal people was seen in self-report surveys in the Yukon[16] and in Cree communities in northern Quebec.[17] These latter two research initiatives also found that among persons who consume alcohol, heavy drinking was more common than moderate consumption.

In 1984, the Federation of Saskatchewan Indians conducted a survey of alcohol and drug use among 898 adults and 385 high school adolescents, who lived either on or off reserve.[18] In total,

39 of 68 bands across the province were surveyed. Among the adult population, 83.9% had used alcohol in the past year, and 34.6% reported regular drinking. Binge, chronic or problem drinking was reported by 37.7%. In the adolescent population, although the usage of alcohol in the past year was high (74.2%), only half as many reported regular drinking as with the adult population (14.8%) and alcohol abuse, as measured by binge, chronic or problem drinking was seen in 11.4% of these self reports.

The Northwest Territories Health Promotion Survey in 1989 which provided a grouping of Inuit and Dene respondents reported a prevalence of non-drinkers and heavy drinkers in the Aboriginal population.[19] This was confirmed in the 1996 edition of the survey, as only 60.1% of NWT Aboriginal persons stated that they had drank alcohol in the past year (compared to 85.2% among non-Aboriginal persons) and heavy drinking was reported in 33.0% of Aboriginal persons (compared to 16.7% in the non-Aboriginal population).[20] In a similar vein, the APS found that within the Aboriginal sub-groups, Inuit were more likely to report abstinence than the Indian or Metis groups. Inuit also differed from the Indian and Metis in that they most often reported that alcohol abuse was not a problem in their communities.[21]

Although the reason for the discrepancies between the level of concern expressed about alcohol abuse and the self-reporting of consumption that has been reported in this section is unknown, possible explanations could include drug education and treatment program success, community norms which preclude substance abuse or conversely, an under reporting of consumption by respondents.

2. Drug Use

There is little available information on the use of prescription or illicit drugs by Aboriginal people. As will be covered below under treatment centres, there appears to be an increasing use of narcotics and prescription drugs in clients admitted into treatment, however use of these substances has historically been secondary to alcohol consumption.

The 1989 Northwest Territories Health Promotion Survey reported that among the Inuit and Dene respondents, 30% of men and 16% of women used cannabis in the last year before the survey.[22] In the 1996 edition of the survey, unlike alcohol, use of marijuana or hash was greater for Aboriginal persons (27.3%) compared to non-Aboriginal persons (10.8%).[23]

A comprehensive and large survey on Aboriginal drug abuse was conducted in Manitoba and comprised Aboriginal (Indian and Metis residents off reserve) and non-Aboriginal adolescents.[24] The study accumulated data on four consecutive years from 1990 to 1993. In the fourteen (non-alcohol) drug groupings which were investigated, the Aboriginal group had consistently higher usage rates (expressed as percentages). In particular, these increased rates were statistically significant in either three or all four years for marijuana, non-medical tranquilizers, non-medical

barbiturates, LSD, PCP, other hallucinogens and crack. For both LSD and marijuana, the four year Aboriginal average utilization was over three times higher than the corresponding non-Aboriginal utilization.

The FSIN study in 1984 also looked at the issue of drug abuse among the adult and adolescent First Nations population in Saskatchewan.[25] In the adult population, 57.3% reported using drugs in the past year, and 26.5% used them regularly. Interestingly, the adolescent results of drug use were similar with 57.3% and 19.1% usage respectively. Drug abuse was measured at 20.7% in the adult population and 8.7% in among the youth. Street drugs and over-the counter drugs were the first and second most often used substances in both groups. Multiple drug use, as well as combined alcohol and drug use, was common. Overall, considering both alcohol and drug abuse (and cross abuse), the study concluded that chronic abuse levels (regular consumption of excessive amounts of alcohol or drugs) were 15% for the adult group and 3% for the adolescents.

3. Solvent Use

A large Canadian study on solvent abuse in Aboriginal children and youth involved 2,850 persons from 25 Manitoba Aboriginal communities and 70 Algonquin high schools from Quebec.[26] Overall, 20% of Manitoba children and 15% of Quebec youth reported that they had tried solvent sniffing, with 6% of the Manitoba group and 9% of the Quebec group revealing that they had used solvents past the experimentation phase. A regular use of solvents was reported by 3% of Manitoba children and 2% of Quebec adolescents. The median age of solvent users averaged 12-13 years, in Manitoba however, children as young as 4-8 years old reported sniffing.

The Manitoba study which reported drug abuse in Manitoba Metis and Indian adolescents also investigated solvent abuse. Glue sniffing was higher among the Aboriginal group compared to the non-Aboriginal groups for each of the four years (1990-1993), and glue sniffing was similarly higher in the Aboriginal group for three of the four years.[27]

The 1984 FSIN study on substance abuse among First Nations in Saskatchewan reported that 18.8% of adolescents in the survey had used solvents in the previous year. Surprisingly, 11.3% of the adult population also reported using some type of solvent.[28]

In the 1996 NWT survey which asked about a history of solvent use (the survey population was 15 years and older, therefore the survey asked about past behavior including childhood use), the percentage of Aboriginal people who had used solvents was particularly high, at 19.0% (some 24 times the national rate) compared to 1.7% among non-Aboriginal people.[29]

Profile of Solvent Users

A 1985 study by the National Association of Friendship Centres researched substance abuse among urban Aboriginal youth.[30] The study found that almost half of solvent users began sniffing

solvents when they were 4 to 11 years old. In order of prevalence, the factors reported to have an association with sniffing included alcohol and drug abuse in the home, family conflict, unemployment, malnutrition or neglect, financial hardship in the home and physical abuse.

Solvent abusers have been described as being more often boys than girls (however female solvent abuse is increasing) who have started abusing at around 9-10 years (the age at onset of use appears to be decreasing), and who have come from dysfunctional families with a history of addiction, and are located in isolated communities. Furthermore, solvent abusers often suffer poor grades or drop out of school, and unemployment, illiteracy, poor housing and a history of physical/emotional/sexual abuse is associated with their sniffing.[31]

The 1994 First Nations and Inuit Community Solvent Abuse Survey questioned solvent abusers in Aboriginal communities. The survey found that most youth respondents began to abuse solvents when they were 4 to 11 years old (49.3%) or 12 to 15 years old (45%). These solvent abusing youth reported experiencing a number of difficulties in their lives. About half faced neglect or malnutrition (43.5%), unemployment (51.7%) and financial hardships (42.3%) at home. About two-thirds were experiencing family conflict (63.5%) or alcohol and drug abuse (67.2)%. Over three quarters of the youth respondents (78.4%) also reported using alcohol.[32]

4. Urban Substance Abuse

There is even less information available on the rates of substance abuse among urban Aboriginal people compared to that obtained for First Nations communities. The 1985 study by the National Association of Friendship Centres found that the majority of centres did not have the capability to maintain records on substance abuse of clients as their clients were visiting the centre for other reasons (employment, housing, education). However 56 of 84 participating centres in the study did complete a questionnaire on types and levels of abuse among their communities. These respondents described severe levels of abuse among all age and target groups, with alcohol being the primary substance. Severe was classified using the NNADAP definition of "abuse is causing individuals to lose the ability to deal with the basic concerns of living - serious problems are occurring in family life, at work, with the law, etc."[33]

Substance abuse was reported by centres among the following groups in their communities as follows:

- 68% reported that abuse was occurring among children
- 89% reported that abuse was occurring among teenagers
- 96% reported that abuse was occurring among young adults
- 76% reported that abuse was occurring among pregnant women
- 77% reported that abuse was occurring among single women
- 77% reported that abuse was occurring among unemployed men
- 84% reported that abuse was occurring among chronic alcoholics

- 77% reported that abuse was occurring among treatment clients
- 68% reported that abuse was occurring among the elderly

5. Mortality

The most common indicator from which to indirectly measure alcohol and other substance abuse is the profile of mortality among First Nations people. Medical Services Branch of Health Canada collects annual data on deaths of Registered Indians by age, gender and cause. Although the methods of data collection and populations surveyed vary among the regions of MSB which limit inter-regional analysis, valuable information is available on national statistics and trends in First Nations mortality.[34]

An analysis of overall First Nations mortality in the MSB database from 1979 - 1993 has shown:

- crude mortality rate for First Nations has declined by 21.4% from 7.0 deaths per 1,000 population to 5.5 deaths per 1,000 population. Males have higher crude mortality rates than females, however this gap has been closing throughout this 15 year period.
- the age group which experienced the largest decline in mortality rate when comparing 1979-1983 to 1989-1993 data was 0 - 1 years (45.1% decline), followed by the 5 - 14 years (38%), and 30 - 34 and 40 - 44 years (each 36%).
- the age-standardized First Nations mortality rate was 1.6 times the Canadian rate in 1993, which was similar to the gap of 1.5 times in 1979.

The prevalence of violent death in First Nations communities is regarded as one of the most visible expressions of substance abuse in this population, and is supported by statistical correlations.[35] The 15 year analysis of MSB data has shown[36]:

- throughout the 15 year interval, the leading cause of death in the First Nations population has remained injury and poisoning, even though this category has seen a 37% improvement in mortality rates from 243 deaths per 100,000 in 1979-1981 to 154 deaths per 100,000 population in 1991-1993. Injury and poisoning is the catch-all category for deaths that are due to accidental and/or violent including those as a result of motor vehicle accidents, suicide, poisoning/overdoses, drowning, fire, falls, firearms, suffocation, exposure, homicide, industrial accident and aircraft crashes.
- for males, injury and poisoning deaths have remained the leading cause of death, although it has dropped from 42.8% of deaths in 1979-1981 to 32.8% in 1991-1993. For these same two time periods, female deaths due to injury and poisoning have dropped from the primary cause in 1979-1981 (26.1%) to the secondary cause in 1991-1993 (20.0%), as circulatory disease deaths have gained more prominence.
- with respect to age, in 1991-1993 injury and poisoning was the leading cause of death for

the age group 1 - 44 years. This category drops to a third ranking for the years 45-64 years and to a sixth ranking for persons 65 years and over.

- Age-standardized mortality rates show that the injury and poisoning death rate was 3.8 times higher in First Nations compared to the Canadian population in 1991-1993. This is virtually unchanged from 1984-1988.
- in terms of potential years of life lost (a quantitative expression of the impact of premature death on a population), overall in 1993 there were 46,037 years lost in First Nations. Of this, injury and poisoning accounted for 55.0% or 25,795 potential years of life lost. On the positive side, in 1989-1993 compared to 1979-1983, 60.9% of the deaths averted (due to a lowering of the mortality rate) was due to the impact of a lowered injury and poisoning death rate.
- a regional analysis for 1991-1993 has shown that in all regions injury and poisoning deaths are ranked first, except the Atlantic and Ontario regions where this category is second behind circulatory disease deaths.

A detailed analysis of injury and poisoning deaths has shown:

- in 1991-1993, the most common causes of death were motor vehicle accidents (40.5 deaths per 100,000 population), followed by suicide (38.0 deaths per 100,000 population) and poisoning/overdose (16.5 deaths per 100,000 population). Motor vehicle accidents and suicides combined account for approximately half of all injury and poisoning deaths.
- in 1991-1993, although suicides were less prevalent among female First Nations persons compared to males, more females died from poisoning/overdoses.
- the decreased rate of injury and poisoning deaths overall (1979-1981 compared to 1991-1993) is due to improvements in the rates of death from motor vehicle accidents (39.4% improvement), drowning (56.8% improvement), fires (44.3% improvement) and firearms (78.3% improvement). The death rate due to suicide has not changed, and the poisoning/overdose death rate has increased two fold.
- suicide rates in the youth (age group 1 - 14) have increased by 44.8% when comparing 1979-1983 data to 1989-1993 data. This has been balanced by marginal improvements in the age categories 15-44 years. The majority of suicides occur in the 15 - 24 age group, followed by the 25 - 44 age group.
- the majority of poisoning/overdose deaths occur in the age group 25-64 years. In the time periods 1979-1983 and 1989-1993, these rates have increased significantly in the 65+ age group (3.6 times), the 45-64 age group (2.6 times) and the 25-44 age group (1.8 times).
- suicide deaths among First Nations are staggeringly higher than for other Canadians. For females aged 15-24 years, the suicide rate in First Nations (35.0 deaths per 100,000 population) was almost 8 times the Canadian rate. For the same age group of males, the First Nations rate (125.7 deaths per 100,000), the rate was over 5 times the Canadian rate. In the 25-34 age group, the disparity is reduced to 4.5 times greater for First Nations females and 3.5 times for First Nations males. Whereas the rate for persons younger than

15 years of age is zero in the general Canadian population (this does not imply no suicides occurred, rather the rate was so small it was rounded to 0 deaths per 100,000), in the First Nations population, the rate for both genders averaged 4.0 deaths per 100,000.

A recent study estimated the total number of deaths and hospitalization attributable to alcohol, tobacco and illicit drugs among Canada's Aboriginal population.[37] The methodology for this estimation included information on the relative risk of disease associated with different levels of consumption combined with prevalence data from national surveys which was then adjusted with Aboriginal-specific information on relative risk and prevalence of alcohol, tobacco and illicit drug diseases and causes of death, and age structure of the population. It is estimated that in 1992 there were 299 deaths (205 males and 94 females) due to alcohol and 48 deaths (40 males and 8 females) due to illicit drugs among Aboriginal people in Canada. When translated to rates, these represent considerably higher rates than that seen in the general Canadian population. For alcohol related deaths, the mortality rate was estimated to be 43.7 deaths per 100,000 for Aboriginal people compared to 23.6 for the general population. The rate of death due to illicit drugs was estimated to be over twice as great: 7.0 deaths per 100,000 in the Aboriginal population compared to 2.6 in the general population.

An study of violent death in Saskatchewan for the years 1978-1982 found that violent death accounted for 40% of all Registered Indian deaths.[38] Extreme variability was seen in the rates from different geographic areas, with northern groups experiencing far greater mortality rates due to violence than the less isolated southern areas.

Another Saskatchewan study on alcohol use among the Registered Indian population for the years 1985-1987 which was based on the injury and poisoning data from the Medical Services Branch database found that alcohol use was implicated in 92% of motor vehicle accidents, 46% of suicides in the 15-34 age group, 38% of homicide perpetrators, 50% of fire and drowning deaths, 80% of exposure deaths and 48% of deaths in the "other" category.[39]

6. Fetal Alcohol Syndrome

Alcohol consumption during pregnancy can result in fetal alcohol syndrome (FAS), and the less severe fetal alcohol effect (FAE). The spectrum of effects of FAS include prenatal or post natal growth retardation, central nervous system abnormalities and facial abnormalities. FAE, which is a milder expression of alcohol damage to the fetus, affects mainly the neurological system, and is seen through hyperactivity, behavioral problems, learning disabilities and social dysfunction. Prenatal exposure to alcohol is now thought to be the leading cause of birth defects and intellectual disability in North America. As well, this prenatal exposure may cause subtle deficits in judgement and reasoning abilities in people with apparently normal intelligence.[40]

The increasing use of alcohol by women of child bearing age has been attributed to the changing

role of women in society, the consequences of social and cultural breakdown of Aboriginal people and marketing strategies targeted at alcohol consumption.[41]

Studies on FAS, and particularly on Aboriginal people are few, and even less are regarded as reliable. Nevertheless, a very high prevalence has been reported in some Aboriginal communities, and it is widely accepted that FAS and FAE among Aboriginal children in some regions are seen at rates above that seen in North American children generally. A review of 10 studies investigating the epidemiology of FAS among American Indians, Alaskan natives and Aboriginal peoples of Canada found that the prevalence of FAS in the Indigenous groups was consistently high across the 10 studies. The reviewer cautioned that the studies had significant restrictions which limited both the confidence in the rates reported and the generalizability of the findings.[42]

7. Morbidity and Treatment

The above study by Single et al which estimated mortality related to alcohol and illicit drug use also provided estimates of rates of hospitalization due to these activities.[43] Regarding alcohol use, Aboriginal persons in 1992 were hospitalized at a rate of 5.1 admissions/1,000 population compared to a rate of 3.0 for the Canadian population. Rates of admissions as a result of illicit drug use were 0.6 admissions per 1,000 population in the Aboriginal population and 0.2 in the Canadian population.

A study of utilization of Ontario alcohol and drug treatment centres by Aboriginal people in 1985-86 found that their utilization was six times higher than what would have been predicted based on the number of Aboriginal persons in the province and equal per capita use between Aboriginal and non-Aboriginal people.[44]

The National Native Alcohol and Drug Abuse Program (NNADAP) provides prevention and treatment services to First Nations persons living on reserves. These are residential facilities operating on a psychotherapeutic model, incorporating intensive, non-medical, culturally sensitive programming lasting 4 to 6 weeks. These centres utilize a treatment activity reporting system (TARS). A review of data and published information from TARS has provided the following:[45]

- In 1991, alcohol, narcotics and hallucinogens were the most widely abused substances, with alcohol being about 4 times more likely to be abused. The reviewer notes that there may be a lack of standardization in the classification of some of the substances, for example cannabis.
- when 1989 and 1991 data were compared, there are clearly stable patterns of abuse in the institutionalized Aboriginal population including the most popular cross addiction patterns of alcohol/narcotics, alcohol/hallucinogens, alcohol/prescription drugs, and narcotics/hallucinogens.
- based on the 1991 data, roughly 40% of the centres' clients were female, and for both genders, the highest numbers of clients were in the 25-34 age group, followed by the 16-

24 age group and 36-44 age group.

- when analyzed by region from east to west, there is a trend to a smaller gap between the rates of male and female participation.
- on a regional basis, the largest treatment participation in the 25-34 age group. Male participation is consistently greater than female participation for all age categories except children in Ontario. These observations are stable from 1989 and 1991. The reviewer has hypothesized that this could be due to a greater abuse problem among males or greater barriers to female participation in treatment (e.g. child care, social stigmatization).
- approximately two-thirds of those entering treatment completed the program (no significant regional differences). Non-completion of the program is primarily a result of client terminations (68%) and staff terminations (21.5%).

A more recent review of TARS data for 1994-1995 has confirmed the above and also found:[46]

- there is a suggestion of an increasing trend of narcotics and prescription drug abuse
- female participation in NNADAP programs increased to 45%. The slight narrowing of the discrepancy between the sexes in treatment participation is theorized to result from more female-friendly treatment centres, reduction of attitudinal barriers to women, or a reflection of a greater number of women in need.

8. Incarceration

Aboriginal persons are over represented in penal institutions in all regions of Canada when compared to their percentage in the Canadian population. In 1988-1989, a survey of Aboriginal admissions to provincial and federal custody verified this statement, and found the highest rates of incarceration in the north and in the prairie regions.[47] In the Northwest Territories, these high rates (86 and 96% for provincial and federal custody respectively) are somewhat balanced by the percentages of Aboriginal people in the general population (63%), however in the Yukon, although there are 28% of Aboriginal people in the population, in federal and provincial custody, the proportion is 50 and 63% respectively. The Saskatchewan Aboriginal population presents an even more dramatic difference: 10% in the population, compared to 52-65% in federal and provincial custody respectively.

In a survey by the Correctional Services of Canada on all offenders at intake, it was found that approximately 75% of Aboriginal offenders were assessed with alcohol problems of sufficient severity to warrant some level of treatment intervention. Over half of this population (53%) also evidenced a drug problem.[48]

9. Homicide

Homicide can also demonstrate social pathology and thus may be used as another indirect indicator

of the effects of substance abuse. In 1988, the proportion of Aboriginal peoples being charged with murder was 16.0 per 100,000, ten-fold higher than the Canadian population. Aboriginal persons were also 8 times more likely to die as homicide victims than other Canadians.[49]

II. EVALUATION OF SUBSTANCE ABUSE PROGRAMS

To be a worthwhile exercise, evaluation must be more than simply an objective look at processes and activities of a organization or program. It must explore the needs of the community and individuals affected by the organization or program being evaluated, and through outcome measurement, get a sense of how well these needs are being met. Most evaluations are constrained by cost and time, and the challenge therefore becomes selective choices of what to evaluate in the most cost-effective manner.

An organization that chooses to undergo an evaluation must consciously accept and welcome the process in order for it to embrace change and be transformed and strengthened and thereby more effectively and efficiently meet its mission. As evaluation has (similar to many other aspects of Aboriginal programs) its roots in institutions external to Aboriginal communities, it often has been adopted grudgingly. If the impetus for an evaluation comes from within the organization, the attitude and spirit of the program will be a central concern along with the operation and outcomes of the program's system.[50] At times evaluation is seen as a legitimate method for getting rid of a program, therefore the community will not welcome what is seen to be a threat to a needed service. Ultimately, evaluation should be integrated into a program, so that evaluation becomes the responsibility of the organization, and staff are participants not merely observers of the process.

The limitations to western evaluation in an Aboriginal context have been provided by the Four Winds Development Project. Although these limitations were directed at educational evaluations of students and learning, the relationship to substance abuse is two-fold. Firstly, education was seen as one of the central mechanisms to heal communities from the ravages of substance abuse. In this context, human development is a learning process from which native people will learn to respond creatively and positively to challenges in their environment which have been the root causes of alcohol and drug abuse. Secondly, the medical model of substance abuse treatment uses similar values to education, that is focussing efforts on persons judged to be deficient in certain areas (as determined through assessment) to bring those persons to a norm or standard of that society.

Although the Four Worlds holistic approach to evaluation was developed in the mid 1980s, the perspectives of this organization are still relevant when developing contemporary evaluation strategies. The following limitations of existing models of evaluation and screening procedures were described:

- the focus of evaluations on the individual in which a standard or normal person is defined

and each person is then compared to this standard. In the Four Winds holistic view of humanity, screening and testing instruments must arise from a philosophical base that interrelates the physical, mental, emotional and spiritual aspects of the individual.

- evaluations usually focus on just one aspect of a system - that is the student or the treatment client. If this person does not meet the standard, the emphasis is on remedial action. Usually the system itself - staff, curriculum materials, program philosophy etc. are not tested or evaluated in any systematic way.
- remediation activities do not transform the context or environment in which certain behaviors arise, rather they isolate the behavior from its normal environment, and attempt to correct the inadequate behaviors. This is contrary to a community-focused holistic approach to treatment.

It is apparent through the preparation of this paper, that few Aboriginal substance abuse programs have been formally evaluated, although it is generally recognized that there are good programs in existence reporting successes in both drug and alcohol abuse treatment. Evaluation is an activity that requires a sizable investment of time and resources on the part of programs, that may already be burdened by large and demanding client populations and waiting lists. Evaluation is a learned skill, and the sporadic nature of it by most organizations ensures that outside expertise is required - again consuming scarce resources.

The process of evaluation is well established in health programs, and will not be summarized here. Health Canada has provided a framework for Aboriginal communities to follow when evaluating health programs.[51] The Health Canada publication includes how to prepare for and conduct an evaluation plan, and how to carry out the evaluation study. As well, scientific literature abounds with information on evaluation in general.

This paper will consider the indicators used to judge effectiveness of programs, the types of evaluation and sources of information used in evaluation. This will be followed by models of evaluation seen Aboriginal substance abuse programs.

Indicators of Effectiveness of Substance Abuse Programs

In treatment program evaluation, the customary indicator to judge effectiveness has been the rate of success in achieving abstinence from alcohol and drugs at some point past the completion of the program by individuals. This has classically been measured by the rate of post-treatment relapse among completed clients or the long-term "clean and sober" rate. The methods used to measure a relapse rate are often subject to error, as individuals questioned may have reasons for hiding a return to their addiction. As well, many previous clients may have moved or are otherwise unavailable for follow-up. In some evaluations, a large component of follow up clients simply will not answer questions about abstinence.

The emphasis on "clean and sober" as a criterion for successful outcome has been criticized as not recognizing the value of programs in reducing consumption rates, as some programs may place value on an individual's success in controlling the amount and frequency of drinking or drug abuse. The post-relapse rate is often not comparable among different programs, again due to the internal values of each program. For example, some programs have achieved success in reducing consumption levels among persons classed as non-completers who have either voluntarily left the program or have had their stay prematurely terminated by staff due to non-compliance with program policies. In this case, the rates that are measured take into account all program participants not just program completers.

There are a number of factors which have been shown in controlled studies in the literature to be correlated with treatment success (negatively or positively).[52] To understand and interpret correctly the results of a program in terms of success with achieving client and program goals, and to judge comparability among different program populations, it may be necessary to evaluate these factors. In the following (n) refers to results of research which have suggested a negative correlation with treatment success, and (p) is a positive correlation with treatment success. Those factors listed below without accompanying terms have shown variability among studies.

1. *Factors outside of the program's control* (usually client history and environment)
    - C demographic variables: age, ethnicity
    - C history of abuse: decreasing age of onset (n), severity (n), primary drug of choice
    - C criminal history (n)
    - C psychiatric history
    - C education failure and dropout (n)

2. Factors related to the treatment program: It is now widely accepted that effective substance abuse treatment may rely on customizing therapies to individual clients. It is therefore difficult to evaluate the effectiveness of any one therapy, rather the model or direction of the program is used as a proxy for treatment strategies. However, more standardized indicators include:
    - C residential treatment length (p)
    - C outpatient treatment length (n)
    - C client perceptions about being in treatment and attitudes toward treatment
    - C number of years counselors have worked in program (p)
    - C number of volunteer staff in direct client contact (p)
    - C counselors' use of practical problem solving approach (p)
    - C provision of special services (recreational, vocational, and contraceptive) (p)

3. *Post-treatment factors*:
    - C drug cravings (n)
    - C lack of involvement in productive activities (n)
    - C lack of involvement in leisure activities (n)

This information on correlations between outcome and other factors was obtained from studies that were not directed at Aboriginal populations. A recent client outcome study completed by the Round Lake Treatment Centre investigated the relationship between outcomes of clients who reported being clean and sober at 3 months, 1 year and 2 years with a variety of demographic and life history factors.[53] Demographic characteristics of persons who had competed the program (completer clients) considered in the study were: gender, age, marital status, educational status, and presence of children. Life history characteristics were types of life history trauma, types of substance abuse, and treatment history (prior to Round Lake). The follow up survey looked at the parameters of abstinence (at time of survey), family relations, quality of life, and self image. The following significant relationships were seen with the client data:

- The study found the following factors were significantly related to being clean and sober at one or more of the follow up periods (3 months, 1 year and two years): *gender* (female), *increasing age* (over 41 years), *marital status* (married or common-law), *not raised in foster home, history of sexual abuse, history of physical abuse, spouse or family with a history of addiction,* and *no history of arrest.*

- The following factors were significantly related to improved family relations at one or more of the follow up periods: *living with someone* (compared to living alone), *post secondary education, never attended residential school, family history of alcoholism,* and *prior treatment for substance abuse.*

- With respect to the same analysis for quality of life, the following factors were significantly related at one or more of the follow-up periods: *attendance at residential school,* and *history of physical abuse*.

- With respect to the same analysis for improved self-image, the following factors were significantly related at one or more of the follow up periods: *employment at intake*, *presence of legal history,* and *spouse with a history of addiction.*

The only factors predictive of program completion were related to life history factors: history of physical abuse (more likely to complete the program), history of intimate partner abuse (less likely to complete program) and client in treatment before (more likely to complete program). There were no client demographic factors which were related to program completion.

Interestingly, no association between client satisfaction and any of the outcome indicators were found as over 90% of the clients were satisfied with all treatment components. There was no satisfaction data on non-completer clients as the satisfaction survey was administered at discharge. The review attributes this high satisfaction rate to be related to a "positive halo" about the program and because clients may not have been totally honest about which parts of the program were most

successful. Also respondents may have believed that this program was their only option so they had better make it work for them.

The Correctional Service of Canada has itemized the characteristics of effective substance abuse treatment programs in correctional facilities.[54] These are:

Multifaceted treatment: The treatment is not based on a single method, but relies on a variety of different treatment modalities and uses a number of specific techniques.

Intensity: Services should be of sufficient duration and sufficient intensity to ensure that skills development and change can occur.

Integrity: The program delivery must conform to the program principles which have been established.

Quality staff: The quality of staff will largely determine the effectiveness of the program, as they must motivate clients to collaborate in exploring their skills and abilities and maintain their interest in training activities.

Well-trained staff: Staff must have the skills required to impart the knowledge or skills that the program aims to teach.

Supportive environment: This includes the staff and actual physical environment.

Good management: Programs must be well managed in terms of program intensity and quality control.

Cognitive-based: The program and its requirements are directed toward changing the attitudes of clients which thereby impact behavior.

Proper selection of program participants: Programs should define, in the methods used and approaches taken, for whom this program is best suited (i.e. target population), and under what conditions.

Proper evaluation: Programs should include the means by which the program and participants can be evaluated (pre and post-program) so as to determine what, if anything, is changed, modified or developed. The evaluation must be able to determine if the program has been successful and for whom.

Types of Evaluation

Evaluation should be an on-going function of an organization, with links to the planning and operational components of a program. However, evaluation is dependent on establishled objectives, from which progress in meeting those objectives can be measured. There are three broad types of evaluation:

Needs assessments: This is conducted at the planning stage of a program, and should address the needs of the community and its goals.

Process evaluation: Synonyms of this include operational review or formative evaluation. Although this is the most common type of evaluation as it looks at the operation of a program, it is often done poorly or superficially. It ignores a vital aspect of the success of a program - its outcome or results. The value of this type of evaluation lies in its attention to improving quality, efficiency and cost-effectiveness of operations.

Process evaluations describe the extent to which the program was implemented as planned, identify implementation problems for future improvements in program delivery, examine the logical sequencing and applicability of program components and how effectively they work in the field, and describe the subjective views and experiences of program staff and participants (e.g. client feedback).[55]

Outcome evaluation: This type of evaluation measures the impact of a program on the target population, and therefore is completed usually after the program has been in existence for some time. In order to effectively measure the impact of a program, it will be necessary to talk to the community and to recipients of services as well as to the program staff.

In an outcome evaluation, there are three types of effectiveness that can be measured:[56]

- Intermediate outcomes: Did the program change attitudes and behaviors that is crucial to reducing substance abuse?
- Ultimate outcomes: Does the program actually reduce substance abuse? What is the impact on the community?
- Differential effectiveness: Is the program more effective with some clients than with others?

Sources of Information for Evaluation

In substance abuse program evaluation, both quantitative and qualitative data are important. Quantitative data will provide hard proof on the impact of a program such as lowering substance abuse rates, and recording improvements in individual functioning and well-being. The evaluation of a program as a whole requires qualitative data in a dynamic approach that obtains information from a variety of sources, including clients, staff and community.

1. Client data

An information system is an essential tool to a comprehensive evaluation of a program. It is a systematic effort directed towards the accumulation of quantitative information to assist with the ongoing operation of a program as well as to provide the foundation for its evaluation. The information system can collect demographic, life history and substance abuse data on clients entering the program, which later can be used to interpret completion rates, outcome rates etc for trends. An example is the Treatment Activity Reporting System (TARS) of the NNADAP program which has provided valuable information on client demographics, including history, type and severity of substance abuse. The TARS data also provides information that will allow analysis on the relative cost-effectiveness and performance of in-patient programs among regions and different programs: bed utilization, non-completions, recidivism, and average cost per bed expended.

Standardized assessment tools provide a quantitative evaluation of client progress during treatment. These are often specific to different health professions, e.g. psychiatry and psychology. They can assist in the evaluation of a program if a discharge assessment is done in addition to the assessment at admission to the program.

To effectively evaluate treatment in the continuum of care, information systems must also include data on community services, outpatient services and aftercare. This will require an integrated or seamless information system that can be accessed by various health providers as the client moves through the treatment process.

2. Organizational Information

As the provider of the service, the program itself is a important repository of information for evaluation. An evaluation should include mission, goals and objectives of the program, systems management, standards of service delivery, qualifications of staff, staff morale, environment, program policies and procedures, client and staff satisfaction with the program, cost of program (per participant or by other measures) as well as observations about the actual functioning of the program.

3. Community Information

Although used more often in needs assessments prior to establishing a program, the focus on community involvement in Aboriginal substance abuse prevention and treatment suggests that community surveys and forums should form an integral component of a substance abuse program evaluation. Some evaluations of Aboriginal programs make reference to the views of community members, however the methodology is rarely included, and it is difficult to ascertain how comprehensive the consultation has been. In general, the community perspective is important to

measure the value of the program, the concern of the community over the issue of substance abuse, the impact the program has had on the community, the level of personal involvement of community members, as well as suggestions for improvement to better meet the community needs. This information can be obtained through surveys or community forums. Also key informant interviews can be held with persons in the community who have first hand knowledge of the program and the community in general.

4. Focus Groups

Focus groups are broadly defined as a technique whereby 8 - 12 individuals discuss a particular topic of interest under the direction of a facilitator. The facilitator directs the conversation to ensure that the evaluation objectives of the activity have been met. The primary data produced by focus groups are the transcripts of the group discussion. Focus groups can aid an evaluation by (1) obtaining general background information about a program, (2) diagnosing program problem areas, and (3) gathering information about client's impressions of a program. Focus groups can be comprised of program recipients (including program clients, family, board members etc.). By targeting issues for focus groups that are important or relevant to clients, the process can empower clients provided the results of these focus groups are shared with the participants and the ideas are enacted. Research has supported the use of focus groups in physical rehabilitation,[57] but the area of mental rehabilitation such as substance abuse has not been evaluated.

The Evaluation Team

The choosing of evaluators is often a difficult task as although the need for an external, outside observer is recognized to bring an objectivity to the process, this person should hold similar values to the community and program being reviewed, or at the very least, not impose foreign values on the evaluation process. External reviewers can be peers from a similar type of program or a professionals specializing in evaluation services. Formal evaluations conducted by external reviewers, however, do not preclude ongoing reviews of various activities in the program solely by staff and community. This method of continuously assessing the quality of a program by program staff should be complementary to the external review process, and form one of the review parameters.

Evaluation models

1. Naturalistic Model

The Nechi Institute conducted an evaluation in 1987 which was based on the naturalistic model and which used four stages: (1) awareness, (2) need identification, (3) knowledge and skills development and (4) integration.[58]

Awareness: Program participants and community members were included as both principal and associate evaluators. This facilitated the learning and teaching component of the evaluation, as well as the on-going mediation, negotiations and discussions. At the board level, awareness was fostered by the development of a paper on evaluation. As well, the team of evaluators were visible in the First Nations community. In the choosing of the evaluators, openness, value orientation, skills and credibility were essential.

Need identification: The evaluation process was internalized as a useful means of bringing about positive change, and was incorporated into the internal process (workshop and curriculum evaluation, personal evaluation). Through familiarity with the evaluation, the process was seen as facilitating expansion and refinement of the program.

Skills and knowledge about evaluation: Through the process, Nechi became more skilled with evaluation. The relationship between the evaluators and participants was one of mutual teaching and learning through the process of negotiation and discussion.

Integration of evaluation: The evaluation process is built into the institutional structure, as part of the strategic plan, the annual report, as well as operationally in staff and activity review. The need for an outsider perspective remained, and was included in the formal evaluation team. The evaluation team included a native evaluator with sensitivity to the relationship of the program to the wider First Nations community, an evaluator from a previous review who could visibly note change and progress, an evaluator new to the program to bring fresh objectivity, and the program administrator as the agent of change, who could motivate the organization to accept the results of the recommendation.

In the Nechi evaluation, a successful approach was to begin the evaluation without any preconceived systems of evaluation to govern perceptions. As behaviors, systems and patterns emerged from the observation process, they were discussed with staff and administration, and a mutual understanding about observations and recommendations was concluded. This practice empowered staff and increased their sense of ownership in the process.

The Nechi Institute conducted two naturalistic evaluations, and found that the first evaluation was important in building relationships within Nechi and developing an understanding of the values which underpinned peoples's behaviors. This allowed the second evaluation to be more valuable. The organization also found that by spreading the evaluation process over a period of months rather than relying on an intensive short-term visit, a relationship and trust developed which was crucial to the success of the process.

2. Best Advice Model

The type of evaluation used in the 1989 review of NNADAP was a "best advice model". This best advice model looked at what ideally should be done in the areas of treatment, prevention and training. The development of this model was based on previous work in the area, in this case the Addictions Research Foundation which undertook the review used their own work and related work in the field to come up with their model. Once the models (covering prevention, treatment and training) were developed, they were used as templates to evaluate how selected NNADAP projects were designing and delivering services. As well as this process-based evaluation by the best advice model, case studies were conducted of 37 selected NNADAP projects. This second approach relied on information gathering from staff, review of case records, and consultations with other stakeholders.

This evaluation approach was subject to cost constraint and therefore limited in that it did not undertake independent research to quantify the success nationally of programs directed to reducing alcohol and drug abuse. It did not evaluate all programs, rather 37 programs in three provinces were selected for the review. The reviewers felt that without a national perspective gained from a full evaluation of all programs, the ability of NNADAP to reduce the incidence and prevalence of substance abuse could not be properly addressed. The reviewers also acknowledged the following limitations in the study design that was chosen:

- it was difficult to make general recommendations on a national program based on a selective review in three provinces.
- the evaluation was a snapshot in time, and therefore could not capture well the effects of change and development over time on the program.
- respondents were concerned over possible funding repercussions of a review and therefore could be reluctant to relay negative information.
- the evaluation did not interview clients of the programs to gain an understanding of the positive benefits of the programs on individuals.
- the selection of programs to be evaluated was not random, and there was not an equal chance for workers to be interviewed. The evaluation team had no input into the selection process thus there were limitations as to the validity of their conclusions.
- the survey questionnaire was not designed appropriately, as many of the terms used were unfamiliar to the field workers questioned.

Overall, this evaluation was heavily process oriented, with little attention devoted to the actual outcomes of the program. Emphasis was on employee statistics (number of staff, time on job, time devoted to program activities), congruence of program with contribution agreement, and alignment with best advice model.

The criteria that were evaluated in the prevention program were:

- a community-based policy
- a comprehensive action plan

- training and orientation regarding programming for Band leaders, Band staff and other social services staff and community volunteers should be in place
- the presence of an integrated prevention effort
- a review process for prevention activities prior to implementation.

The criteria that were evaluated in the treatment program were:

- easy access to detoxification services
- easy and timely access, comprehensive assessment, and a sound, client involved referral system
- the option of a number of treatment methods so as to meet individual client needs
- existence of case management services where appropriate
- an aftercare component
- comprehensive record keeping

3. Outcome Analysis

Outcome analysis is a quantitative method which focuses on statistics concerning program outputs. This is often used as a method for comparing various programs that offer the same service. A recent example of an outcome focused analysis was conducted on solvent abuse centres in the First Nations and Inuit Health Program of Health Canada. In response to the need for solvent abuse prevention and treatment among First Nations and Inuit, Health Canada established funding in 1995 for six interim programs of residential treatment in existing solvent abuse programs across Canada. These programs were classed as interim, as funding has been announced for the creation of six permanent solvent abuse centres. The centres have various approaches to treatment, and not all are run by First Nations communities, although all receive a high number of clients who are First Nations or Inuit. The programs vary from a culturally-based program set in a bush camp to solvent programs in existing substance abuse treatment centres which may operate on a medical model, use a 12 step philosophy, incorporate medicine wheel teachings, or include behavioral model components. The program operating in the bush camp had a 28 day defined length of stay, the others were considerably longer or open ended.

An evaluation was done on the treatment outcomes of these centres in 1996[59]. It was based on quantitative data from previous clients, and for many of the parameters, all five of the participating centres were evaluated together. This is despite considerable differences in the few centre-specific characteristics which were included in the evaluation report (e.g. average age of client varied from 16 to 25 years, average length of stay varied from 25 to 284 days). As well, the programs had differences in their policy for rule infractions (including the use of substances) and therefore had different policies on discharge.

A key weakness of the evaluation methodology was determined to be the method of collection of

data from persons who had been clients of the centres. The clients were interviewed by program personnel who by virtue of their professional relationship with the clients could have influenced the truthfulness of their answers. As well, the program managers determined who would be the best person to contact - the client or significant caregiver. If an appropriate person could not be contacted, and file notes were used to complete the client data sheets.

Despite these limitations, the programs' data was presented together, presumably because of low client numbers in some of the programs. Data was provided however, on the percentage of solvent use abstainers after treatment by program. The rates varied from 40.9% to 60.0% - difference of almost 50% - although the reviewers did not value the 60% result as the sample size was low (15 clients). They stated that the type of treatment program attended appeared to have made little discernable difference in the number of post treatment abstainers, based on the other programs' rates which varied from 40.9% to 46.2%.

The study concluded that the persons who completed their entire program had a considerably higher treatment abstinence rate than those who did not complete. Interestingly, the programs with the longest (284 days) and shortest (25 days) length of stay had the best abstinence rates (60.0% and 46.2%) respectively, which would suggest that success of programs is largely independent of the physical time spent in treatment[60].

4. Community Evaluation

The views of the community are important to determining the effectiveness and value of a program in meeting a community's needs. The 1993 survey of the Regional Advisory Board of for Saskatchewan NNADAP provides an example of community input into the evaluation process.[61] Community members were questioned about whom they would contact if they had a problem with drinking or drugs, as well as whom they actually did contact when they had an alcohol problem. Respondents who had attended treatment centres were asked about their opinions on the facility, its program, staff and physical condition. Regarding treatment success, the two indicators used were completion of the treatment program and changes in drinking patterns after treatment.

In many of the Aboriginal substance abuse programs reviewed for this report, a community evaluation component is not included or the method to obtain community input has not been described.

5. Accreditation

Accreditation is widely used in Canadian health care facilities to measure the quality of service delivery. It is a client-focused process by which facilities are evaluated against standards of care and service delivery. Typically, an accreditation process utilize external reviewers who will

interview all levels of management and staff, as well as clients and family members of clients. The review team will also evaluate the programs in the facility against national standards, and will review statistics and other relevant program data. The accreditation process is not a replacement for ongoing evaluation activities in the facilities (peer review, quality assurance, evaluation of utilization statistics etc.), and it provides a comprehensive review of all activities in relation to the mission of the organization and their relevance to community and client needs.

The NNADAP program developed national treatment program standards in 1992, along with an accompanying framework for an accreditation process of treatment centres. The accreditation process was defined as a system designed to improve the quality of NNADAP funded residential addiction treatment programs through a process of assessment of the services, resource management, organization and operations against national standards and criteria.[62] To date, this accreditation process has not been implemented.

III. THEORETICAL MODELS OF SUBSTANCE ABUSE TREATMENT

Effective treatment of clients suffering from substance addictions is founded on a spectrum or continuum of care which incudes early intervention strategies, an access system that ensures clients receive the appropriate intensive care, provision of treatment, and a follow-up supportive system which limits recidivism. The high rate of relapse and recidivism of First Nations clientele in a variety of treatment modalities for substance abuse has been attributed to a lack of follow-up and after-care. In this context, after-care refers not only to support provided to the treated client, but also to the receptivity of the family and community to a returning community member. In particular, clients who return to a substance abusing environment are often unable to retain their sobriety or drug-free status, particularly without contined support from the treatment program.[63]

The discipline of alcohol and drug prevention and treatment has several theories or assumptions from which various approaches to service provision are based. The most common theories/models include:[64]

Disease or Medical Model

The disease model of substance abuse was born out of the Alcoholics Anonymous movement in the 1930s. Alcoholism was officially recognized as a disease requiring medical treatment in 1956 by the American Medical Association. As a disease, alcoholism has symptoms and may be acute, chronic or progressive. This model does not include a cure for alcoholism, thus there is an emphasis on abstinence. This model is emphatic that as alcoholism is a disease, a person should not be held responsible for their dependence. Although this has helped remove the stigma of

addicted persons having weak characters, the disease model has been criticized by some as not promoting a feeling of personal responsibility in recovering individuals. Therefore in critical periods, such as a relapse, a person may feel powerless as drinking is associated with a symptom of a disease and therefore not controllable.[65]

Genetic Model

The predisposition to addiction is genetically based. This model is similar to the medical model in that abstinence is the only successful treatment.

Psychological or Psychiatric Model

A deep underlying psychological problem is causing the alcoholism. Removal of this problem could cause the alcoholism to diminish or disappear.

Behavioral or Social Learning Model

This model which is based on scientific research holds that alcoholism or other addictions are a learned behavior, as people learn that alcohol has a number of reinforcing effects like reducing anxiety, increasing sociability, reducing shyness and increasing one's own sense of personal power. The treatment component of this model lies in controlling this behavior and moderating substance use.

Moral or Religious Model

This model believes that drug abuse results from a moral weakness or lack of willpower It is based on a punitive religious approach, as the addict has a bad or evil character and only through religious salvation can addictions be treated.

Native Cultural/Spiritual Model

The native cultural model is a form of sociological model, which is founded on the belief that social and cultural factors act as determinants for addictions among the members of a society. his is quite different from the models described above which have focused on morality, psychology and physiology as the primary determinants of addition problems. In an Aboriginal context, this model states that Aboriginal people turn to substance abuse because of the loss of culture and tradition. These must be restored before alcoholism and addictions can be resolved. The following is one adaptation of the sociological model:

Cultural Congruence Model

The theoretical and philosophical basis underpinning the move to culturally integrated and appropriate prevention and treatment activities in substance abuse is beyond the scope of this report. Many of the treatment programs now in practice are integrating culturally-specific components into their service, or delivering the entire program through Aboriginal therapies. The cultural congruence model provides a theoretical framework for mental health care in a variety of cultural contexts.[66] It is defined in culture-neutral terms - that is, it can be adapted to any culture

or ethnicity. In this model, a culture is envisioned as an organically functioning system into which health care is naturally and harmoniously integrated. Culturally-specific services take priority over mainstream services, and all service elements must be derived from and harmoniously integrated into the overall cultural context.

Cultural identity not only is integrated into treatment activities, the cultural context of the therapist-client relationship should be considered and discussed during treatment if appropriate. Wherever an ambivalence, conflict or devaluation of one self or culture group is seen, a positive cultural identity should be a treatment goal. This model strives for a bi-culturalism, whereby the original culture is positively valued and actively maintained while at the same time comfort, familiarity and competence in mainstream culture is achieved.

Although this model does not devalue the benefits of counseling, medication or other forms of treatment that are not culturally-specific, any culture-specific aspects of a person's problem must be treated in a culturally-specific fashion, so as to ensure success of the other forms of treatment.

In Aboriginal culture, the helping role is defined differently from non-Aboriginal culture. Helpers are expected to be of the same cultural system, as they will be accepted by Aboriginal people not based on their training or experience, but because of their personal connections to the community. This has important implications for the role of mental health workers in Aboriginal communities as well as for the credibility of mental health services.

Many treatment approaches currently in use in both Aboriginal and non-Aboriginal programs combine a number of models in their strategy of care. Contemporary theory acknowledges that there is no one single approach to treatment for all individuals, and by matching individuals to treatment options, the effectiveness and efficiency of treatment may increase.

Of the above, the disease model and the behavioral/social learning model are seen most often in treatment programs, often in combination. Table 1 lists their major differences.

Table 1: Comparison of the Social Learning and Disease Models

TOPIC	SOCIAL LEARNING MODEL	DISEASE MODEL
Focus of Control	Person is capable of self control	Person is a victim of forces beyond one's control
Treatment Goal	Choice of goals: abstinence or moderation	Abstinence is the only goal Slip is seen as a failure

Treatment Philosophy	Fosters detachment of self from behavior Educational approach	Equates self with behavior Medical/disease approach
Treatment Procedures	Teaching behavioral skills Cognitive restructuring	Confrontation and conversion Group support Cognitive dogma
General Approaches to Addiction	Search for commonalities across addictive behaviors Addiction is based on maladaptive habits	Each addiction is unique Addiction is based on physiological processes
Examples	Cognitive-behavioral therapy (outpatient) Self-control programs Controlled drinking	Hospital treatment programs (inpatient) Aversion treatment AA and Synanon

From: Correctional Services Canada. 1992. *Creating an Informed Eclecticism: Understanding and Implementing Effective Programs: A Focus on Substance Abuse*. Ottawa.

Follow-up and Aftercare Model

A recent initiative by the NNADAP program has been to develop a model that acknowledges the importance of aftercare and follow up in the continuum of care for substance abuse. This model was developed after consultation with Aboriginal people in communities, and completion of an extensive literature and program review on the subjects of follow up and aftercare. The author of this model has described it a "neutral" in that it is not based on any of the theories/models of alcohol and drug abuse described above. Good assessment, treatment and aftercare are seen as integrally related and dependent upon each other for success.

In this aftercare model, three stages of recovery post-treatment have been identified in the treatment/recovery continuum:

> *early stage of sobriety*: focus of client on not drinking and learning not to drink.
> *middle stage of sobriety*: focus of client on sobriety (to stop drinking and to learn to be sober.
> *advanced stage of sobriety*: a new phase of growth and development of the client, who is no longer preoccupied with sobriety. In this stage, there is a greater sense and degree of healing and restoration of health and equilibrium to one's life.

The treatment/recovery continuum used in this aftercare model is presented in Appendix 1. The treatment phase is comprised of:

- an assessment of the effects of drinking.
- a pre-treatment phase where the client is prepared for the treatment process and understands what will be needed from them to get maximum benefit from the process.
- treatment, either residential or out-patient where the client is educated about alcoholism, and understands that the only recourse is abstinence. Here the client learns to stop drinking.

The recovery component of the model includes:

- post-treatment stabilization: this is a continuation of the treatment phase where the person, who no longer is drinking, is helped to make the necessary adjustments to his or life.
- follow up: extends throughout the recovery phase and is addressed to obtaining information about the success, progress, and problems that will assist the person and the program to measure the degree and extent of recovery
- aftercare: the process of providing on-going help and assistance in maintaining sobriety.
- transformation: clients go through deep and profound changes in their lives, where they are now comfortable with their sober state.
- growth and development: this is the final phase which may not be achieved by all persons, where interests other than drinking become dominant in their lives. The preoccupation with sobriety no longer exists.

Harm Reduction Model

This is a relatively recent approach to substance abuse treatment. As the name implies, the focus of this intervention is to reduce the harm associated with use of drugs, not to necessarily reduce the levels of use. It can be used in a practical sense to help drug users first use drugs in a safer fashion, before a drug-cessation strategy is attempted.

Key concepts in harm reduction that are relevant to policy development in this area have been described:

- Abstinence is not always the only appropriate objective of policy
- Prohibition and enforcement in and of itself can generate certain types of harms, at both the individual and societal level
- The substance abuser is viewed as a member of society, not as an outsider, and may need treatment and other assistance to re-integrate into the community
- It is most often a community-based strategy, and it places as much or more responsibility for effectiveness on strategic partnerships rather than formal institutional interventions
- There may be a need for some forms of legal controls and their enforcement, but this should be integrated into the overall strategy.[67]

Examples of harm reduction measures directed to drug use are needle exchange programs (to prevent the spread of disease) and methadone maintenance. For alcohol users, a simple harm reduction strategy is to open alcohol retail stores earlier to prevent alcoholics from using alcohol alternatives, such as shoe polish. The benefits of harm reduction strategies can include destigmatization of users, improved outreach, prevention of AIDS and a decline in criminal activity by users.[68] The major barrier to harm reduction for alcohol is the abstinence orientation of many Aboriginal decision-makers and treatment staff.

IV. PREVENTION PROGRAMS

Prevention strategies are included in substance abuse continuum of care for a number of reasons. Effective treatment of substance abuse is a long, complex process, with post- relapse rates in the literature varying from 35% to 85%.[69] It is can be extremely expensive, even more so if treatment is sought out of country due to inadequate services locally or provincially. The economic costs of substance abuse in Canada are thought to be enormous, however there has been no study that has provided an overall estimate of the total costs associated with the use and abuse of all psychoactive substances in Canada. Alcohol costs have been estimated most often. These cost estimate suffer from numerous methodological and conceptual problems and may be unreliable and lack credibility.[70]

Governments have widely adopted population health strategies which are designed to affect the entire population and which address the entire range of factors that determine health. Prevention is an investment which involves all determinants of health, and is not preoccupied with solely health care. In this approach, prevention strategies are targeted not only at educational materials which inform about the risks and consequences of substance abuse, but also at the environment which predisposes an individual to use and eventually become addicted to alcohol and other drugs.

Cost is a major consideration in all health care services, and prevention has often been held up as a cost-effective approach to many health problems. However prevention programs have rarely been evaluated with respect to cost-effectiveness. Educational programs have been reviewed the most and have concentrated on short-term knowledge retention and attitude change, rather than long-term behavioral change.[71]

Types of Prevention Programs

There are a number of approaches to substance abuse prevention, from the classical education strategy to more contemporary psychosocial alternatives, such as resistance skills training and personal and social skills training. The following strategies commonly used in Canada and the United States have been detailed in *Substance Abuse in Children and Adolescents*, S. Schinke, G. Botvin and M. Orlandi.[72], and are summarized briefly here. This is followed by some observations on prevention programs specifically tailored to Aboriginal people.

Information Education

This strategy is based on the concept that once individuals are educated about the adverse consequences of alcohol and drug use they will develop attitudes that are anti-drug and thus be able to make a conscious decision not to use drugs. Information education of this sort is carried out by public campaigns by advocacy organizations and government, and more locally in schools. Information programs may include fear-inducing components that graphically show the serious

consequences of substance use. The many studies and reviews of traditional educational approaches to substance abuse prevention has shown that this methodology is largely ineffective. It appears that the presentation of factual knowledge will increase knowledge and change attitudes to substance abuse, however it will not reduce or prevent the actual abuse from occurring. In fact, some studies have indicated the opposite, as increasing knowledge can stimulate curiosity in teenagers.

Based on a review of Canadian and American research, it has been suggested that in order for educational programs to be effective, they must be linked to broadly based community changes in norms reinforced by public policy, and to mass media and parent-organized campaigns.[73]

Affective Education and Alternatives

These two strategies are mainly geared to children and adolescents. They are complementary in that both attempt to steer children into non-drug environments. Affective education programs are often classroom based, and are geared to increasing self-esteem, responsible decision making, and interpersonal growth, in addition to learning current facts about alcohol and education. The alternative approach is just that - it is targeted to providing alternatives to drug-use, such as youth drop-in centres, and other recreational services. The danger in these programs is that some entertainment and vocational based programs may actually increase substance abuse, presumably due to group interaction in these environments. Overall, evaluation studies on these strategies have shown no impact on reducing substance-abuse behaviors.

Resistance Skills Training

More success has been seen in preventing substance abuse using resistance skills training which focuses on the social influences which shape perceptions of normal, acceptable and desirable behavior. This training gives students the tools to recognize, handle and avoid situations where they will experience pressure to drink or use drugs. It can include role playing, peer leaders as facilitators, and awareness of messages in alcoholic beverage advertisements. These interventions have had success in reducing the rate of smoking as well as alcohol and marijuana use.

Personal and Social Skills Training

Personal and social skills training is closely related to resistance skills training, but instead of a program-specific content, the individual is given a broad range of skills for coping with life. Typical components to these programs include problem solving skills, general cognitive skills for resisting peer pressure or advertisements, skills for increasing self-control and self esteem, general assertiveness skills, and interpersonal skills.

This prevention approach has shown significant behavioral effects, primarily in reducing experimental use of tobacco. There is also some evidence that it may also reduce the level of regular use.

Community-Based Approaches

There are few examples of community approaches to substance abuse prevention in the non-Aboriginal environment, except for parents' movements, such as MADD (Mothers Against Drunk Driving). In general, these strategies include parents, schools, and community-based organizations, and focus on direct training of youth in the acquisition of drug resistance skills and the training of teachers, parents and other community members as program implementers. One community initiative in the United States - *Communities That Care* - is described below.

Early Intervention Strategies

Early intervention strategies are directed to identifying people who are using alcohol or drugs and may be experiencing early problems. The objective is to help these people before they reach a chronic or habitual stage. In addition to identification by health care professionals who may use standardized tests to evaluate high risk individuals, other early intervention strategies include programs for impaired drivers and wellness or employee assistance programs in the workplace. There has been some success in early intervention strategies, such as reduced drinking or abstinence in "problem" drinkers who are not yet alcohol dependent.[74]

Prevention Strategies for Aboriginal People

Programs targeted specifically to substance use are the formal mechanism to reduce this problem in society. In the Aboriginal context, however, it is important to acknowledge that one of the best prevention programs is directed at improving the dismal socio-economic conditions that face most Aboriginal people, whether in reserve, rural or urban locations. The link between socio-economic status and substance abuse has been established. For example, the Saskatchewan Alcohol and Drug Commission in a review of 1991 data showed that their clients experienced much higher unemployment levels and lower educational levels compared to the general Saskatchewan population.[75]

Control policies targeted at alcohol consumption, such as government regulations on the minimum drinking age, and price increases can reduce alcohol-related fatalities or alcohol consumption. However, on First Nations reserves, 'dry reserve' policies have largely not been effective. This has been linked to a lack of enforcement by Band Council resolution or a community mediation/policing service.[76]

Prevention programs for Aboriginal people are not highly differentiated from treatment programs. This could be a reflection of the immediacy of need now in treating addicted persons. Since effective substance abuse programs appear to be closely linked with support from the community and role modeling by community leaders, the changing societal norms in these communities may have an unevaluated but important prevention role.

Examples of Prevention Programs

In Aboriginal communities, prevention strategies are most commonly funded by the NNADAP program. The primary role of NNADAP workers in communities is alcohol and drug education. Past reviews have criticized NNADAP prevention programs as inadequate. This has been ascribed to a focus on treatment, counseling and aftercare for persons identified as substance abusers, in the activities of the NNADAP staff.

1. Round Lake Treatment Centre

Early Intervention Strategy

The Round Lake Treatment Centre implemented a demonstration project on a non-residential solvent abuse community intervention in 1994.[77] Four communities were involved in the project and have provided varying perspectives to the initial three month pilot. Only one community took full advantage of the community resources, and internalized a strong sense of ownership, commitment and empowerment to address solvent abuse among the youth. This was facilitated by close work with community agencies, elders, youth and families to undertake community change and ongoing community action.

In the other three communities, the attention brought to solvent abuse was beneficial, as individuals acquired new skills and made visible commitments to help the community address solvent abuse. Community intervention plans were begun, and youth were identified and referred out to solvent abuse residential programs. However, the effectiveness of the demonstration project in these three communities was limited by a lack of a serious, time-intensive commitment in two, and a constant crisis of youth suicide in the third. Overall, an evaluation of the demonstration project showed 10 key elements critical to the successful implementation of this type of program:

1. A clear set of principles, plan and strategy.
2. Visible commitment by Chief and Council through word and action
3. A qualified full time community liaison worker
4. A specialist team which is skilled and cohesive
5. Clinical and project management support
6. Availability of external resources, particularly treatment resources for solvent abusers and their families.
7. A realistic time frame for the project (up to one year)
8. proficiency in Aboriginal language by the Specialist team members.
9. A holistic community-based training program (including team building) for the community intervention team, Chief and Council, police, medical personnel, and other health personnel.
10. An internal and external agency coalition to collaboratively address solvent abuse and other related health problems.

2. Communities That Care

Community-Based Prevention

Research findings have supported comprehensive community-wide interventions as one of the most promising approaches to adolescent drug abuse prevention. The *Communities That Care* drug reduction strategy developed in the United States has been held up as a model intervention in a conference of social scientists and evaluators.[78] The*Communities That Care* strategy uses community mobilization processes to reduce risk factors and increase protective factors against drug abuse. Mobilization consists of four phases:

1. community key leader recruitment and orientation
2. community advisory board formation
3. risk and resource assessment by the community board to identify priority risk factors
4. action planning and implementation of family, school and community interventions which have been developed by the community and which reduce risk factors and enhance protective factors.

In the strategy, a minimum of three interventions are developed for each of three domains: school, family and community. The following general prevention principles form the core of the *Communities That Care* strategy:

- interventions should focus on known risk and protective factors.
- interventions should target risk and protective factors which are appropriate for different levels of development.
- prevention of drug abuse should start early, including major components that are delivered before drug use initiation occurs.
- interventions should reach people at high risk.
- interventions must address multiple risk factors across multiple domains - individual, family, school, peer group and community.

V. TREATMENT PROGRAMS

Characteristics of Substance Abuse Treatment Programs

A treatment program in substance abuse should typically have the following components:

- *detoxification*: In a detoxification process, all physiological traces of alcohol and other drugs are completely removed from an individual. In the past, this was accomplished by close medical supervision, however, there has been a trend away from hospital-based detoxification to home-based care with out-patient support services. This may not be suitable for many Aboriginal people, as residential detoxification is the preferred method when it is necessary to remove the individual from an abusing environment. The end result of what ever method is chosen should be clients seeking treatment after they have been detoxified.
- *system access, assessment and referral*: timely access to treatment, comprehensive assessments and referrals which reflect client needs.
- *treatment:* a range of treatment options which can provide customized care to individual clients. These options can include Alcoholics Anonymous, native cultural treatments, residential treatment and outpatient counseling. Out-patient counseling is an attractive option for substance abuse primarily because of the high cost of residential care. As well, in-patient care does not have a good track record regarding long-term abstinence, as individuals may relapse upon return to their former environment. Outpatient programs are more flexible, offer the individual the opportunity to become sober while living in the community, and has no community re-orientation period. Out-patient care also provides the option for long treatment periods that are normally not available in many residentially-based programs.
- *case management*: coordination of various aspects of care from different health professionals to ensure continuity of care and clear communication. Optimally the case manager should assist in re-intigrating an individual into the community after residential care and in providing access to support services in the community.
- *aftercare*: a critical element of an effective continuum of care in substance abuse treatment is ensuring that clients receive continuing assistance during the period of recovery. A formal aftercare program is not seen in many established treatment programs and has been identified as a major problem with NNADAP in-patient programs. There are two main types of aftercare which have been favourably reviewed[79]: case management (see above) and relapse prevention. The latter is a relatively recent initiative in substance abuse treatment and is targeted directly to dealing with the difficulties of long-term changes in addictive behavior. Strategies are employed to counteract the factors which can precipitate relapse such as interpersonal conflict, social pressure and depression.
- *program documentation*: a comprehensive information system is required to facilitate the care process and allow continuing monitoring of the effectiveness of the program.

Treatment Modality Approaches

In a recent extensive review of the literature on substance abuse treatment modalities, 25 treatment approaches were evaluated. Of these, eight were deemed to be effective. The following is an overview of the results of research into these eight modalities which support their effectiveness.[80]

Assertion Training

Assertion training is a standard component of substance abuse programs, providing participants with tools on how to respond to difficult interpersonal situations with assertive rather than drinking/drug using behavior. This type of training has shown behavioral gains in alcoholics, however the effectiveness with drug abusers has not been ascertained. Reports of the positive impacts of such assertiveness are equivocal. Despite this, the benefits of assertion training particularly in a chronic population whose profile can impede recovery, are thought to be critical.

Recognizing High Risk Situations

The concept of high risk situations is based on observations that even persons with severe alcohol problems do not drink incessantly whenever alcohol is available. Identifying high-risk situations and developing interventions is fundamental to behavioral treatment of any problem. Research has shown the most common categories of high risk behavior common with alcohol abusers and heroin addicts to be negative emotional states, interpersonal pressure and social pressure.

Relapse Techniques

In this form of relapse prevention, individual should be able to anticipate and identify high risk situations, possess skills to deal with those situations, and should have the expectations that using these skills will result in a beneficial outcome. One of the main contributions of relapse prevention to the addictions field is that it has brought into open discussion the fact that relapse is a frequent event following treatment. The available evidence largely supports the efficacy of relapse prevention, although improvements attributable to this technique tend to be modest.

Social Skills Training

Social skills training is another common component of substance abuse treatment programs. It assists drug and alcohol users in functioning more effectively in social situations. There are various approaches to this field including teaching more effective communications skills to improve interpersonal relationships and social skills training to improve social functioning. Social skills training in general has been found to be an effective component in treatment programs, and is supported from conclusions of several studies showing positive impacts on substance-abusing behavior after treatment discharge and at longer follow-up intervals. Social skills training can be used as a single component program or as part of more comprehensive treatment approach.

Problem Solving

Problem solving skill training is generally used in as one component of treatment programs that utilize other approaches (e.g. social skills training). In the research literature the evidence supporting problem solving skills training is positive, yet must be considered as indirect as it is difficult to separate the individual benefits of one component of a multi-component strategy. Regardless, the lack of adverse effects and the presence of beneficial outcomes has been used as justification to recommend the incorporation of problem solving in procedures totally lacking in evaluation.

Methadone

Methadone treatment was developed as an alternative to heroin, and was originally intended as a maintenance medication. For physiologic reasons, a person on methadone has little incentive to also use heroin. Methadone treatment is usually accompanied by behavioral counseling. Multiple evaluations have supported the effectiveness of methadone in reducing users' consumption of illicit drugs, reducing criminal activity and allowing users to become socially productive and psychologically stable. In the literature, research results which are not supportive of methadone use are generally explained in terms of an inadequate methadone dosage. One theory on methadone usage supports the continued use of this drug, rather than a gradual withdrawal, an approach that has become part of a moral debate. North American programs generally are reserved for those severely addicted to heroin and have the goal of withdrawal from methadone. In many programs in Great Britain, Europe and Australia methadone is available to less severely addicted cases as well and maintenance is socially accepted.

Employment Training

Generally, persons who present serious drug and alcohol problems also have difficulties finding and retaining employment. Follow-ups of substance using offenders has shown that securing and maintaining employment after incarceration will lower recidivism rates. The purpose of employment training in substance abuse programs is to develop or enhance skills necessary to secure and maintain employment upon completion of treatment. A number of studies have shown improvements in employability of individuals post-treatment.

Provision of Aftercare

Research has shown that about 66% of all relapses following substance abuse treatment will occur within the first 90 days. Aftercare, generally provided in the community, is designed to provide a continuum of care which will allow the maintenance of goals of functioning achieved through treatment. The profile of an aftercare program will reflect the components of the treatment program, whether it be based on the Alcoholics Anonymous 12 steps model or on cognitive-behavioral treatment (problem solving, high risk identification and related skills). Aftercare can be provided through informal discussion or support groups to more formalized interventions that continue the development of specific skills. As the behavioral changes in participants enrolled in aftercare have been quite dramatic in the literature, it is recommended that aftercare should be viewed as an essential treatment modality.

Examples of Treatment Programs

This review was limited to an examination of published and unpublished documentation on substance abuse treatment programs. Few formal evaluations have been done on the various programs now available to Aboriginal people.

1. National Native Alcohol and Drug Abuse Program

Medical/Disease Model

The main vehicle in Canada for substance abuse prevention and treatment program directed to Aboriginal people is NNADAP. The goal of NNADAP is to support First Nations and Inuit people and their communities in establishing and operating programs aimed at arresting and offsetting high levels of alcohol, drug and solvent abuse in these communities. It has four components of prevention, treatment, training, and research and development. In general at the community level, most of the NNADAP funds are allocated to community-based programs and to residential treatment, with lesser funds directed to out-patient treatment and training.

NNADAP community-based programs emphasize prevention as a central component. Despite this, as a 1994 Saskatchewan NNADAP review has indicated, the expectations of what community NNADAP workers should provide in reality extend far past prevention. In addition to alcohol and drug abuse education in the community, these expectations include providing counseling, doing assessment and referrals, and providing aftercare services to Band members. These expectations may have evolved out of practice and the sometimes limited skills of workers.[81]

Nationally, the profile of the services provided NNADAP by program varies among the over 400 community programs and the 49 treatment facilities which provide almost 700 residential treatment spaces. The treatment facilities operate primarily on a medical model (with the disease model of causation and an emphasis on the Alcoholics Anonymous approach) and within each the degree of integration of an Aboriginal component to therapy varies. The treatment centres are organized in non-hospital model, however they were originally fashioned after existing programs in non-Aboriginal centres, and therefore a cultural component is often an add-on. In the 1989 review of NNADAP, the four treatment programs which were reviewed illustrated two different approaches to integrating an Aboriginal component to therapy:

> *Aboriginal component is an add on to established treatment program*: This approach is founded on the belief that some cultural practices and ceremonies will not be accepted by the First Nations community, and that participation should not be mandatory. Other options include orientation to culture, such as learning an Aboriginal language, cross cultural education and cultural awareness.

Aboriginal culture is integrated into the therapy process: In this model, the treatment process is dominated by a traditional orientation, using ceremonies, spiritual activities, traditional therapeutic techniques and involvement of elders.

The most extensive evaluation conducted to date on the NNADAP program was undertaken in 1989. It evaluated 4 NNADAP treatment centres and 32 community prevention programs. The treatment centres reviewed offered programs which were 4 to 6 weeks long and which were seen to be highly structured and fixed for all clients. The review found many inadequacies in the treatment centres. The method of evaluation use by the reviewers was the Best Advice Model and is detailed in the section on evaluation. The centres were found to have inadequate outpatient treatment (constrained by the funding formula), an unorganized approach to aftercare, a limited spectrum of treatment options, a lack of outcome evaluation and standardized assessment instruments. Many of the recommendations of the reviewers were directed to remedying the lack of continuity of care in the treatment centres, which was due to inadequate attention and resources paid to both the pre-treatment and aftercare systems. In particular, the need for resourcing to encourage the development of non-residential treatment options was highlighted as were suggestions to broaden the scope of treatment alternatives overall.

The absence of a organized approach to prevention was a major review observation, as many of the 32 NNADAP sites which offered prevention services were devoting the majority of their efforts to treatment activities, including assessment, counseling, self-help and aftercare/follow-up services. The review recommended that a prevention model be developed and become part of the requirements of contribution agreements which fund prevention activities. The lack of formalized community involvement was noted as only one of the four programs reviewed had a policy statement from the band council which addressed the issue of substance abuse.

With respect to evaluation, the reviewers recommended funding be set aside for outcome based reviews, so that both the on-going treatment programs and innovations to programs can be assessed. The review noted the absence of scientific evidence to judge the success of treatment models, in particular Aboriginal substance abuse treatment.

The reviewers also advised that staff skill levels should be upgraded, but cautioned that without other changes, many of the workers currently in the system were unlikely to benefit from the level of training required to make an impact. This was because the quality and quantity of supervision that was available at prevention and treatment sites was often so low or absent that it could prevent the professional growth and development of persons who had received training programs.

Community-based Evaluation of NNADAP

Treatment for alcohol and drug addiction is a complex area, and it is dangerous to generalize about gaps and inadequacies as what works for one community may be entirely inappropriate for another. The following are observations from the Alexis First Nation who developed a plan to address

substance abuse in their community.[82] The most common deficiencies in the existing NNADAP substance abuse services were cited as:

Inadequate training: In First Nations and Inuit communities, it is not uncommon for NNADAP workers to be untrained in the field of addictions counseling.
Waiting lists: The lack of sufficient beds in residential treatment facilities is a serious problem as most addicted persons seek treatment when they are in crisis. In Alexis two out of three individuals who seek treatment for their addictions experience a relapse before they are admitted to a residential treatment program.
Lack of support programs in community: This is one of the major deficiencies in the treatment system. Community support is needed in relapse prevention, life skills, in-home support, and on-site resource people to continue therapy.
Lack of coordination between addiction and other therapies: Persons with addictions are typically experiencing crises in other areas of their life, such as family violence, criminal behavior or suicide. There often is inadequate or no communication between drug and alcohol counselors and other community service providers.
Role of traditional healing and medicine not acknowledged: Traditional healing has proven effective in drug and alcohol addiction, but there are many barriers and concerns which prevent an acceptance of this approach.

2. Selkirk Healing Centre [83]

Native cultural model

The Selkirk Healing Centre is described in its promotional literature as a therapeutic community that strives to affect positive changes in the environment, peer groups, family relationships, work habits, attitudes and values of its residents. It focuses on abstinence from substance abuse and use. The centre admits Aboriginal clients only and therefore place importance on individuals gaining an understanding and confidence in their role as Aboriginal people, including an increased responsibility for their actions and behaviors.

The program not based on a medical or disease model and does not subscribe to the Alcoholics Anonymous's 12 step approach. The healing centre's staff includes a contracted physician and a consulting psychologist. Program and community activities are enhanced by pipe ceremonies, healing circles, spring and fall ceremonies, naming ceremonies, round dances, sweat lodges and traditional pow-wows. Elders are employed as cultural and spiritual leaders of the community and also as visiting guests. As well, the Council of Elders is a nationally-represented committee which advises on Aboriginal traditional, cultural and spiritual programming.

There is no formal treatment length of stay as this is based on individual need. There are four criteria to judge completion of the program:

1. Maintenance of a daily routine (e.g. going to work, getting up on time etc.)
2. Substance-free during entire course of treatment
3. Completion of 66% of personal goals. These goals are set in the first 4 -6 weeks of the stay, and can be changed by individuals at any time.
4. A realistic plan for exit. This includes a plan for what people will do, who will be their community contacts etc.

The second criteria above is compulsory. For the rest, the individual must have completed two of the other three criteria in order to have been judged as successfully completing the program. Aftercare is not formalized in an outreach program, however a monthly graduate group exists, and persons are invited to return to Centre events. The person who referred the individual for treatment is also contacted upon program completion, and support is provided through telephone calls as needed.

An evaluation of the first 15 months of operation (January, 1995 to March, 1996) has been completed. A six month follow-up was undertaken for all persons entered into the program, whether or not they were actually judged to have completed the program. Two quantitative evaluations were carried out. The first looked at the reduction or abstinence from substance abuse compared to initial entry into the program (daily use, weekly use, monthly use) and found that 75% of persons had either eliminated use or reduced their use at six months compare to their levels at admission.

The second component of the evaluation used an overall treatment needs assessment. Individuals were rated at entry into the program on a scale of 1 - 6 regarding their emotional and physical needs related to substance abuse. At six months, the assessment was repeated and results showed that 98% of these individuals had achieved a positive change in their levels of treatment need towards being more self-reliant.

The centre is currently facing a fiscal crisis due to lack of federal funding for First Nations clients. The adult and family program is ending at the end of February, 1997 and the youth program has been reduced and limited to solvent abusers only. The future of the youth program is also uncertain.

3. Okunongegayin

Native cultural model

This is a model of treatment for chronic solvent abuse which has been developed in northern Ontario.[84] It sees solvent abuse as a symptom of a wide range of problems affecting communities where such abuse occurs, and therefore the treatment program involves individuals, families,

community organizations and agencies. The strength of this approach is not in building a permanent institution, but rather in drawing resources from all the institutions and agencies around the problem of solvent abuse.

Although this model utilizes a "treatment centre" approach, it is recognized that as a community heals and young people are no longer ill, there may not be a need for this particular structure. The first period of the project (a demonstration period) saw the program operate out of a bush camp. In the life of this program, there will be a declining need for a central camp, and more initiatives at the local level.

Description of program

This model is founded on Anishinaabeg philosophy, beliefs and practices - it is emphasized that it is not based on behavioral change theories seen in psychology, social work and addictions. The program identifies the cause of a client's illness, and tailors actions to improve the condition. In addition to offering healing sessions for youth who abuse solvents, it acts as a resource to help communities develop their own initiatives. As a community-driven program, this model is seen as a expression of self-government.

The program combines therapeutic intervention with a preventative, harm reduction and health promotion framework. The individual is seen not only in terms of their needs, but also in the context of the larger extended family and community. The components of the program are:

- clinical hospital assessment at admission, that verifies the client's fitness for the bush program and screens out violent or medically unstable individuals
- formal opening ceremony and a week of detoxifying sweat lodges
- preliminary assessment by a Anishnaabe therapeutic ceremony called the shaking tent.
- three weeks of intensive therapies, chosen based on individual need.
- follow-up assessment by the shaking tent ceremony.

Operational evaluation

Two evaluations were carried out on the demonstration project: an operationally-focused review of the process and the outcomes of the project and, secondly a formal peer review among the consulting professionals.

The results of the demonstration phase of this project showed that of the 136 candidates admitted to the program, 68% (92 persons) stayed for the duration. Almost all of the persons who completed the program underwent a formal evaluation at the end of the program, and 50% were judged healthy, with a further 41% were in need of further treatment.

Seventy persons were available for follow-up, and at the end of the demonstration period were

evaluated. Thirty-five (50%) showed long term significant change, of which 30 persons were judged to be of no concern to social workers or were doing well with regular, supportive visits. Over half of these 35 persons had left the treatment for over a year previously. Almost 40% of the 70 clients who were followed showed no discernable change, with the remainder (11%) unevaluated.

The results of the evaluation program judged the treatment program successful, however the reviewers cautioned that success was dependent on proper referral and admission procedures so that the candidate had a supportive family and environment in which to return. The program was judged least successful with candidates suffering from severe cognitive impairments from solvent abuse.

The evaluation noted that community efforts could also be independently successful in lowering the incidence of solvent abuse, but this was beyond the scope of the evaluation.

The program was evaluated to be cost-effective and innovative. It cost $9,000 per candidate completing the program, or based on the follow up sample success of 50%, $12,000 - $24,000 per long term successful outcome. The length of the program at 4 weeks compared favourably to other solvent abuse programs which were typically 6 - 8 months long. (The Ontario Ministry of Health reimbursement for out-of-country addiction treatment was up to $400 per day.)

The demonstration project conclusions included that this program showed that it is not necessary to follow the dominant institutional models for alcohol abuse interventions, but instead other options such as traditional medical models, harm reduction and brief interventions may be successful. In fact, one of the conclusions of the recommendation is that effective solvent abuse programs cannot follow the usual models common to substance abuse programs. The program successfully integrated institutional resources where necessary, and was not preoccupied with establishing a pure community-based program. Programming must be flexible and integrate an individual's treatment into a larger community framework. As part of the developmental process, the program was extending its expertise and services to other communities.

4. O'Chiese Community Rehabilitation Program

Mobile, community-based treatment

The O'Chiese Program is a mobile treatment for alcohol abuse which was implemented by Poundmaker's Lodge and the Nechi Institute.[85] The O'Chiese band when it started the program had a rate of alcoholism of well over 90%. The average age of mortality for the community was under 25 years. The program's model is based on community strength from which a team effort arises. This team approach includes a spiritual component, and consists of a circle of interrelationship between the person, family, the community and the band. The program steps include:

- acquiring and cultivating a vision of positive end results: i.e. sobriety
- developing a commitment towards achieving this vision
- establishing a supportive and loving sobriety team
- incorporating into the team, Elders, youth, band workers in all areas, and outside health and social agencies
- a 28 day treatment program which includes education about alcoholism and how it can be treated
- organizing an on-reserve program with alcohol counselors from both the Band and Poundmaker's lodge.
- aftercare - rebuilding or learning how to live with sobriety, enter the work force, find sober entertainment
- beyond sobriety

This program relied on heavy community support. Pre-conditions for establishing the mobile treatment program were sober community leadership and band staff. As well, a substantial number of the band had to voluntarily enter treatment at Poundmaker Lodge. Once the pre-conditions were satisfied, planning for the mobile program began with the establishment of a Community Development Team. This was a working committee comprised of Elders, and representatives from the health and social program areas. The strength of this team was seen to be the organic structure which valued all members contributions and minimized the hierarchial aspect. This team became a focal point of the program's vision and the members were role models in the community.

In an evaluation of the program[86], it was considered successful for both the individuals who participated as clients and the community as a whole. This was felt to result from strong community leadership, a vision of community development and health, a base of persons who were sober or had at least been treated before for alcoholism, extensive planning and a cultural basis to the treatment program. This assessment was limited to a one-day on-site visit and did not look at quantitative data on outcomes of the program.

5. Beauval, Pinehouse and Cumberland House Community Treatment

Mobile community-based treatment

An evaluation was conducted by the Four Worlds Health Promotion Program in 1992 on three mobile treatment services in Saskatchewan.[87] These programs were based on the Four Worlds model which is based on community development, not just in substance abuse treatment, but in all facets of learning and development. In the Four Worlds approach:

- the medicine wheel is an effective and powerful analytical tool for looking holistically at human and community development.
- development comes from within the community, which responds to a vision of health.
- individual, family and community level processes must be interconnected. Learning is the key to health promotion.

- community development is seen as a long process, taking from 5 to 20 years before all key issues may be addressed. Community personnel must be trained to think and enhance peoples' involvement in the community health development process.
- strong political will and program leadership is needed to establish a new core programming pattern that integrates all program efforts into a single organic comprehensive approach.
- community development is inside-driven, but outside helpers such as Four Worlds personnel are crucial in the beginning of a program, not to impose outside ideas on the community, but to mirror the development consequences of behavior back to the community so people can see the effect of their words and actions on the process.
- to ensure there is not long term dependency of the community on Four Worlds field officers, a formal mentorship and training approach is used that coaches staff and volunteers in their day-to-day work in community health development.

The evaluation of the mobile treatment programs was conducted through face-to-face (one-on-one) interviews with former clients. The evaluation found:

- there were varying degrees of sobriety achieved among the three communities, varying from 20% "completely sober" to 55% "sober after one year". For all communities, these percentages improved if persons who relapsed but regained their sobriety were included.
- all communities were encouraged by the results, as these rates were seen as much higher than those achieved by residential treatment outside of the community.
- all participants in the three communities reported an improvement in their lives, directed both to community relationships and community interaction.
- the lack of an "organizational or institutional" feel to the program was important. Holding the program in the community was seen to be innovative and successful, however the evaluation noted a lack of aftercare support and community involvement in one community.
- a special mobile program for youth was recommended in one community.
- better communication was needed before the program begins, for both the participants (pre-treatment sessions) and the community (awareness and understanding).

6. Ka-Na-Chi-Hih Solvent Abuse Treatment Centre
Combined medical and cultural model

This solvent abuse centre in Thunder Bay has just recently opened, therefore no evaluation exists on its program.[88] It does however highlight the direction being taken in solvent abuse treatment for Aboriginal people, towards a merger of traditional and contemporary approaches. In recognition of the extensive neurological damage that can occur with chronic solvent abuse, a multi disciplinary program has been developed including occupational therapy, physiotherapy, counseling, life skills training, education, individual counseling which is melded with traditional teachings from Elders, spiritual healing ceremonies, trapping, recreation and rehabilitation and group work (anger management, self-esteem, abuse, communication).

Assessments are done in the following areas: cognitive/neurological, psychosocial, functional, physical and education. Other services include purification and readiness and consultation with traditional healers. The assessments are monitored for cultural appropriateness and the treatment team uses the information from the assessments in developing a comprehensive treatment team.

Table 2 illustrates the contributions of the two approaches used in the treatment centre on the individual, group, family and community.

TABLE 2
PROGRAM COMPONENTS
Ka-Na-Chi-Hih Centre

	TRADITIONAL APPROACH	CONTEMPORARY APPROACH
Individual	Individual healing sessions with traditional medicine people	Individual medical treatment with staff
	Individual spiritual counseling with sweat lodges	Individual counseling with psychologist, psychiatrist, or member of clinical team
	Individual counseling with elders	Individual counseling with pastor/minister
Group	Greeting circle/talking circle	Discussion group
	Healing circle/sweat lodge	Group therapy
Family	Family healing circle	Family counseling
Community	Community healing circle	Community development

7. Round Lake Treatment Centre
NNADAP program

The Round Lake Treatment Centre's Client Outcome study which was detailed earlier in this report also conducted a longitudinal study of the centre's program over two time periods. The study evaluated the outcome of the treatment centre during the current period of the outcome study (1991-1995) with a previous study that had been carried out on clients who has been in treatment from 1797-1985.

The centre's goals include high-quality and innovatieve, in-patient and community-based treatment and treatment services, and a commitment to develop and implement programs that involve the family in prevention, intervention and treatment. Although the structure of the program remained the same over the previous 10 years, several key changes in approach and treatment methods have evolved. These changes related to:

- increased screening of clients prior to intake in order to ensure greater suitability and readiness for an intensive in-patient treatment program.
- increased emphasis in treatment on cultural awareness building and spiritual guidance
- increased emphasis on group support and healing circles as an intervention technique rather than primarily one-on-one counselling.
- decreased use of confrontational authorative AA techniques.

Table 3 compares the follow-up outcome status for those clients who completed the program in 1979-1985 and 1991-1995.

Table 3
Follow Up Outcome Status for Completer Clients, 1979-81 and 1991-95
(Clean and Sober)

	1979-1985		1991-1995	
	% clean and sober	# clean and sober	%clean and sober	# clean and sober
3 months post completion	73.3%	148	86.9%	218
1 year post completion	64.9%	131	68.8%	119
2 years post completion	59.1%	114	65.1%	82

Table 4
Follow Up Outcome Status for Completer Clients, 1991-1995
(family relations, quality of life, self image)

	Improved Family Relations	**Improved Quality of Life**	**Improved Self-Image**
3 months post completion	69.3%	72.1%	54.2%
I year post completion	53.2%	65.3%	64.2%

2 years post completion	65.9%	73.0%	67.5%

The program showed higher rates of clean and sober clients in 1991-1995 at all periods post completion. The largest difference was at three months (13.6%), which narrowed to 4-5% for the 1 and 2 year follow up periods.

The study also looked at other outcome variables, however this information was available for only 1991-1995. These variables were: improved family relations, improved quality of life, and improved self image (Table 4). The only variable which had consistent increase over the three time periods of 3 months, 1 year and 2 years was improved self image, which increased by 13.3% from 3 months (53.4%) to 2 years (67.5%).

8. Natitch Salallie Youth Residential Treatment Program [89]

Combined medical and cultural model

This adolescent program based in Keizer, Oregon, is based on the principal that recovery will occur by building self-esteem through the social, cultural. physical, and spiritual holistic approach. This is an abstinence based program which uses the 12-step approach in individual counseling. Cultural programming is integrated into all aspects of the overall program, and includes compulsory studies into tribal government, tradition and history.

As an intensive residential treatment, the program varies from 30-90 days depending upon client need. In addition to the individual counseling, other service components include coordination with the client's school to ensure that education needs are met, family counseling, and follow-up and aftercare (begun in the last week of the stay). Upon completion of the residential program, clients at high risk for relapse can participate in the Transitional Living Component (TLC) for a period of 30-90 days. While in the TLC program, a client must be working on education or employment goals. Activities include relapse prevention, establishing support systems, self-esteem building, decision making and life skills.

9. Rediscovery International Foundation [90]

Wilderness cultural model

Rediscovery International Foundation began as a single camp in British Columbia, but in response to requests to help develop programs in other locations, it has expanded to numerous sites in western Canada and the United States. Rediscovery has been described as reversing the process of residential schools. Through the wilderness experience, people are brought back in touch with the land, their cultural roots and themselves.

Elders are involved in every aspect of the program, as leaders and counselors. A guiding principle

is authenticity as the program must be run by Aboriginal people in Aboriginal communities. Participants are encouraged to take leadership roles, are taught to live from the bounty of the land, and are recognized for personal achievements. This is a two week program, but follow-up is attempted during the winter months, through elders' hospitality and traditional dance groups.

10. Symposium on Monitoring Outcomes for Substance Abuse Treatment Systems

Although the importance of outcome measurement on substance abuse treatment is well understood, it is only recently that an intensive focus on designing and testing outcome measures has occurred in mainstream treatment. The Symposium on Monitoring Outcomes for Substance Abuse Treatment Systems was held in Toronto in February, 1997 and drew together international experts on substance abuse outcome research. This symposium recognized the value of traditional measures of classification, such as demographic information, social support, mental health status of clients and severity of dependence on substances, but went one step further to explore the multi-dimensional measures of outcome, including improvement in personal and social function, reduction in public health and safety risks , and reduction (not necessarily abstinence) in alcohol and drug use. The accuracy and validity of these latter outcome measures are highly dependent on the instruments (assessments, surveys etc.) used. They are also influenced significantly the circumstances surrounding the collection of information, such as the amount of time to be requested of the client and whether face-to-face or telephone interviews are utilized.[91]

Outcome measurement tools typically include assessment instruments which are used at admission, discharge, and to gauge progress through treatment. A client-perceived improvement questionnaire should monitor satisfaction and improvement - two important dimensions for the client which may be linked to perseverance and motivation.[92] The Alberta Alcohol and Drug Abuse Commission (AADAC) has implemented an outcome monitoring system for the continuum of care.[93] It has three main subsystems (detoxification, treatment and training) each with their own set of outcome measures and procedures.

Outcomes which are measured in the AADAC system are in the following programs:

- outpatient individual counseling
- day treatment
- short term residential counseling
- long term support services

All the above treatment services have the same outcome measures, clustered in three areas:

- client satisfaction with the treatment services
- post treatment alcohol, drug and gambling use (three months past treatment)
- post treatment life functioning

AADAC staff and managers have identified three main issues when implementing outcome

monitoring: time and cost of the process, integration with the work flow, and procedural complexity.

The call for better information on outcomes is now being heard from funding sources. For example, AADAC is now facing pressure from the Alberta government to improve treatment success rates. In the future, there may be a demand for return-on-investment goals (health care and crime offsets), however, the government now is requesting recovery-oriented goals.[94] The organization is questioning whether or not they know how to change rates, and asserts that the literature has not demonstrated that treatment outcomes have improved over the past thirty years. In addition, AADAC has debated the appropriateness of abstinence as a treatment goal and the levels of post-treatment abstinence currently being achieved. As there is no common accreditation process for measuring and reporting performance such as abstinence, comparisons may be inappropriate among certain centres in AADAC

Outcomes must not only be measured but also managed. Outcome management consists of:

- a common patient-understood language of health outcomes
- a national database containing information and analysis on clinical, financial and health outcomes which tries to estimate the relationship between medical interventions and health outcomes, as well as resources and health outcomes
- an opportunity for decision-makers to have access to analyzes that are relevant to the choices they must make.[95]

The Toronto symposium did not include presentations on Aboriginal approaches to outcome measurement. Some non-Aboriginal treatment programs were highlighted which have tracked outcome in their client population. One study looked at the length of time in methadone treatment and its relationship to outcome. The study found:

- improvements in illicit drug abuse, alcohol use, and criminal involvement occurred from before to after treatment, with longer retention in treatment (especially a year or more) being significantly related to better outcomes.
- age over 35 years, lower injection frequency, and higher motivation for treatment were each associated with two fold increases in the likelihood of having favourable outcomes.
- patients staying in treatment a year or longer were nearly 5 times more likely to have better outcomes
- length of stay in treatment was predicted by higher patient motivation at intake and early program involvement.[96]

A long term multicentre outcome study of treated alcohol dependent persons in German speaking Switzerland was also presented.[97] The study population were inpatients in centres specializing in alcohol addiction. Clients were followed up 7 years after treatment. There was little information supplied in the paper presented to the symposium on the type of treatment that was provided in the eight centres, other than they were aimed at achieving abstinence and were designed to result in the

"rehabilitation of the affected individuals." The centres had varying length of stays, ranging from 6 weeks to 12 months, although most patients were admitted for medium-term therapeutic stays (undefined). In the reference treatment of the study, the mean length of stay was 5.5 months, with a range of between 1 and 567 days (s.d. = 90 days). The follow-up investigation used a self-administered questionnaire, or a shortened telephone survey to non-responders of the initial questionnaire. The reference treatment clients comprised 15% of all the clients which were admissible to the study. Results obtained included:

- 63% of former clients reported at least one episode of relapse during the seven years since the index treatment. 15% reported relapses of more than three years.
- the mortality rate of clients followed up was six times higher than the general population. Principle cause was liver damage and internal bleeding of the gastrointestinal tract. The second most frequent causes of death were suicide and cardiovascular disease.
- employment was positively related to abstinence - among the employed, the rate of abstinence was 3 times higher and the relapse rate 20% lower.
- study population suffered from considerably more health problems than the general population (this, however, was not related to age)
- people in a stable relationship were significantly more likely to have an unproblematic relationship with alcohol or drugs (unless the partner also had dependence problems)
- in general abstinence or low consumption of alcohol post-treatment was accompanied with a positive assessment of quality of life.

The authors of the Switzerland research point to the need for adequate evaluation in the alcohol field - evaluation that is able to distinguish minor lapse from heavy relapse, and controlled consumption from uncontrolled consumption. Therefore both patterns of drinking and the related situations are important, and create great challenges to designing complex evaluation tools. They suggest that knowledge of the overall evolution of consumption patterns might be an important tool when evaluating the dynamics of the recovery process.

I. OBSERVATIONS

The purpose of this review was not to recommend one type of evaluation or treatment program in substance abuse among Aboriginal people, but rather to present the different approaches to prevention and treatment that are currently being used, and to identify the indicators of effectiveness these programs have used in evaluations. The following observations are pertinent to this review:

1. Evaluations of Aboriginal substance abuse programs have concentrated on completion rates, abstinence rates or decreases in substance consumption as outcome indicators of effectiveness. This quantitative approach suggests that comparisons should be possible among programs, and therefore the success of different programs can be determined. There are many differences among Aboriginal substance abuse programs that will preclude this type of comparison. These include an absence of benchmarks in outcome statistics, differing program approaches based on various models, differing policies regarding program completion, varying severity of client populations, differing length of stays, differing views on positive outcome (i.e. abstinence vs reduction in consumption levels), and differing populations evaluated (inclusion of all participants in statistics or just those judged to have completed the program).

   There are no established benchmarks for programs to use when evaluating treatment or prevention of Aboriginal substance abuse. For a community embarking on a formal intervention program or mobile service, initially at least, any success in achieving sobriety appears to be welcomed. The issue of how successful the program should be becomes secondary, and in most cases, impossible to estimate due to the varying program approaches seen among communities and the lack of a common benchmark value. In the evaluations contained in this report, reported outcome measures included: eliminated or reduced use by participants (75%), significant long term change of completers (50%) and sobriety (20% - 87% depending on length of time of follow-up.

   Some programs (e.g. Selkirk Healing Centre) are challenging the abstinence-focus to outcome measurement, saying that effectiveness of treatment should be evaluated by a reduction in the level of alcohol consumption or drug use. As well, the benefits of the program to non-completers is also recognized by this program, as all participants not just completers are followed to determine post-program success.

   National evaluation data from TARS used in the NNADAP program includes trends in abuse of different substances and cross addictions, bed utilization, numbers of admissions, number of completions, reasons for non-compliance, client recidivism and treatment costs per day. The TARS data has been judged to be limited by inconsistency of reporting and lack of accuracy. There is a need to ensure the reliability of the TARS data, and also to extend the data collection efforts to encompass the continuum of care.
2. Contemporary Aboriginal substance abuse programming emphasizes the role of the

community in developing, delivering, and supporting programs. This would infer that the community, as an integral part of the treatment program, should also be evaluated. There are two aspects to community evaluation: (1) the effect of community involvement on the program, and (2) effect of program outcomes on the well-being of the community. There appear to be no formal evaluations that have focussed the first aspect. The most commonly used indicator of community involvement is the presence of a supportive Band council policy supporting the treatment goals of the program. The second aspect regarding effect on the community has been commonly inferred from client outcome rates.

3. Information on the quality of services provided through programs is also lacking in evaluations. Undoubtedly some programs must include client satisfaction exit questionnaires, however these are not obvious in the literature reviewed for this paper, with the exception of the Round Lake Treatment Centre client outcome study.

   There is no evidence of on-going continuous quality improvement or total quality management strategies in the program evaluations reviewed. In fact, quality of service is a rarely used indicator in these evaluations. The objective of these methods are to ensure quality and increase the effectiveness of services in organizations and programs. CQI and TQM concepts and models are well established in both the private and public non-profit sector. The quality circle approach of these methods uses team problem-solving that values contributions of all levels of staff, and would be complimentary to traditional Aboriginal consensus-building.

4. Demographic factors, previous life history and prior treatment for substance abuse have all been shown to have an influence on program outcome. Ideally, a program should capture this data in an information system, so as to shed light on the reasons for the outcome rates which have been achieved. These data requirements should be in place during program implementation in order to obtain baseline data on clients.

5. There were no evaluations among those reviewed for this report that looked at staff burn-out, overwhelmed case-workers or other staff-related factors that might prevent an optimal program outcome. Other areas that could be measured include non-Aboriginal and Aboriginal conflict (program design or direction), community rejection or lack of support.

6. There was little differentiation by severity of alcohol or drug abuse when presenting outcome results. Contemporary approaches to treatment strategies in substance abuse are becoming increasingly sensitive to the importance of the levels of use as an indicator of severity. Levels of use have been suggested to include experimentation, recreation (seeking drugs out), habituation (psychological dependence), abuse (negative effects ignored) and addiction (a compulsion to seek drugs). These levels may have benefit in determining early

intervention strategies as well as appropriate treatment approaches.

7. Follow up outcome data on clients who are re-integrated into the community are subject to the truthfulness of respondents who may wish to not disappoint program staff. There can be an appreciable number of clients who refuse to answer questions on sobriety (particularly if the focus of the program was solely on abstinence, as in the Alcoholics Anonymous approach). This can lead to two statistics being presented on client outcome which are often greatly different: abstinence in respondents, and abstinence among persons who answered that particular question.

8. There is no formal mechanism to ensure that minimum standards of care are adhered to. Although program standards have been developed in NNADAP, these have not been formally used in an accreditation process nor is there a commonly accepted process by a recognized body which conducts evaluation.

9. Aboriginal approaches to substance abuse treatment appear to be moving away from the Alcoholics Anonymous model, which sees abusers as not responsible for their actions, and which uses confrontational techniques. Rather a combined medical and native cultural model is favoured. In these programs, components of western approaches to treatment that are complimentary and culturally-neutral are utilized. It is recognized that not all clients may feel comfortable with a program that is based solely on traditional culture.

10. The issue of cost is rarely broached in evaluations. This is not specific to Aboriginal programs as there is a general lack of cost-effectiveness studies in substance abuse treatment. Reasons for this include conceptual problems in designing the evaluation, disagreement over treatment goals, disagreement about outcomes, uncertainty about the appropriate length of stay in treatment, variability among treatment programs, high drop-out rates and reliance on self-reporting by clients.[98]

    Areas that are important to evaluate with respect to cost include: What types of clients are most costly to treat? What client types benefit most from treatment? How do benefits compare to costs? In the fiscally constrained field of Aboriginal health care where each precious dollar must do double duty in meeting the great health needs of the population, this information becomes even more relevant than for the general population.

    The most common units to evaluate costs are abstinence or reduced substance use, but equally important are the indirect benefits which are more difficult to measure and value. These include quality of life improvements, increases in employment, and reduced criminal activity.

11. Effective evaluation requires a commitment by all persons associated with the delivery of

a program, including staff, volunteers and administration. Evaluation must be seen as a beneficial aspect of the program design, not as a threat to either the individual staff or the continued existence of the program. Ideally, staff and volunteers should actively participate in the design of an evaluation and its implementation.

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