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Background Resource Paper

on

THE BENEFITS OF TREATMENT IN REDUCING

THE HARMS ASSOCIATED WITH

SUBSTANCE USE AND GAMBLING DISORDERS

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INTRODUCTION

Addictive disorders, in particular substance (alcohol and other drug) use disorders and problem gambling are a widespread health problem in New Zealand with significant personal, social and economic costs to the community. This paper summarises the extent and nature of the problem and how providing treatment for these disorders can contribute to reducing these costs and improving the wellbeing of individuals, family/whanau and society.

PREVALENCE OF SUBSTANCE USE DISORDERS

The most commonly used drugs for recreational purposes are alcohol, tobacco and cannabis.

The results of the 2006 NZ Mental Health Survey (Oakley Browne et al, 2006) of Zealanders aged 16 years and over indicated:

- 13.8% of the population (452,059 people or 1 in 7) are predicted to meet the criteria of a substance use disorder at some time in their lives and 3.5% (114,652 people) having a disorder in the past twelve months.
- 75% of those who develop a substance disorder do so by 25 years of age.
- Males have prevalence rates of substance use disorder double those for females.
- After adjusting for socio-demographic correlates, prevalence rates for Maori are higher (6%) than for Pacific people (3.2%) and Others (3.0%).
- In terms of the standard medical diagnostic DSMIV categories for mental health, in the past twelve months 2.6% of the population experienced alcohol abuse, 1.3% alcohol dependence, 1.2% drug abuse and 0.7% drug dependence.

Less than 1% of the population have used opiates in the last twelve months (Wilkens et al, 2006). The number of people with opioid dependence in New Zealand is estimated at 9,953 (Deering et al, 2008).

It is estimated that 24% of 18 year olds have a substance use disorder (NZ Guidelines Group, 2008).

The NZ-ADAM survey (Hales and Manser, 2007) of people apprehended and retained in watch houses by NZ police found 37% of all participants reported a dependency on at least one drug.

Lifetime rates of alcohol or drug abuse or dependence in the NZ prison population are 83.4% (Dept of Corrections, 1999). Only one third have received some treatment for the problem.

PREVALENCE OF GAMBLING DISORDERS

At any given time, between 0.3% and 1.8% of adults in New Zealand are likely to score as problem gamblers on standard questionnaires, that's between about 10,000 and 50,000 people (Abbott & Volberg, 2000). Analysis of the 2006/07 New Zealand Health Survey (Ministry of Health, 2006) estimated that one in 19 were at low risk and one in 50 were at moderate risk of their gambling being a problem. However, a further 0.6% of gamblers met the criteria for problem gambling, equating to 13,000 adults, or 0.4% of the total New Zealand adult population. The behaviour of each severe problem gambler is also likely to affect between 7 and 17 other people to some degree.

2007 statistics (Ministry of Health, 2008b) show that non-casino gaming machines (pokies) were the primary mode of problem gambling for over 70% of people using services.

Research in New Zealand indicates that 33% of money lost gambling is by people with gambling problems, these people are predominantly poor, female and Maori and Polynesian. (Brown & Raeburn 2001).

A study in New Zealand men's prisons (Abbott et al, 2005) found that 21% of inmates were lifetime probable pathological gamblers and that 19% of these inmates were in prison for a gambling related offence. Another study in women's prisons (Abbott & McKenna, 2005) found that a third of the women were assessed as lifetime probable pathological gamblers.

WHAT ARE THE CAUSES OF SUBSTANCE USE AND GAMBLING DISORDERS?

Research indicates a range of biological, psychological and social factors in play including genetics, family history, socialisation, cultural norms and values around substance use and socio-economic deprivation. A public health perspective also recognises the impact and role of the supply and marketing of potentially dangerous and addictive products on the prevalence of disorders in the community.

Disorders are characterised by the loss of ability to control substance use or gambling without external intervention and support.

THE IMPACT OF SUBSTANCE USE AND GAMBLING DISORDERS ON INDIVIDUALS AND SOCIETY

Mental and Physical Health

The NZ Mental Health Survey (Oakley Browne et al, 2006) found:

- Of people with substance use disorders in the past 12 months, 40% experienced an anxiety disorder and 29% experienced mood disorder.
- People with substance use disorders have a higher prevalence of chronic physical diseases and of chronic disease risk factors.
- Substance use disorders are associated with about a three fold increase in suicide behaviour.

Seventy four percent of people with a substance abuse disorder attending outpatient treatment in two NZ clinics were diagnosed as having another co-existing mental health disorder (Adamson et al, 2006).

28% of frequent drug users tested positive for Hepatitis C in findings from a NZ 2006 illegal drugs trends survey (Wilkens et al 2006).

12,000 disability adjusted life years are lost due to alcohol in one year in NZ mostly as a consequence of injuries and cancer. Alcohol misuse was responsible for the loss of over 16,000 disability adjusted life years lost (ALAC, 2007).

A study of New Zealand data from 2000 found that 51% of alcohol-attributable deaths and 72% of years of life lost in 2000 were due to injuries (ALAC, 2007).

Foetal Alcohol Spectrum Disorder is the greatest preventable cause of brain damage in NZ (www.alcohol.org.nz).

An Australian study has found that 20.3% of problem gamblers reported physical symptoms associated with their gambling and 60% of those with moderate or more severe gambling problems suffered depression (Productivity Commission, 1999).

Crime

Alcohol and drug abuse and problem gambling is clearly linked to offending.

The NZ-ADAM survey found more than 50% of users of all drugs other than cannabis reported that their drug use had contributed to their criminal activity to some extent. Cannabis figures were around 27% (Hales and Manser, 2007).

A Department of Corrections study in 1998 found that 89% of serious offenders were alcohol and drug affected in the period leading up to their offence.

Alcohol misuse is a significant factor in 75% to 90% of weekend crime (www.alcohol.org.nz).

Problems associated with gambling include financial debt and loss of assets, theft or fraud to fund losses - in NZ prison surveys, 15% of males (Abbott et al, 2005) and 26% of females (Abbott & McKenna, 2005) report offences of this type.- relationship breakdown, deceased work productivity, domestic violence, neglect of children, social isolation and suicide. There is also a high correlation with hazardous alcohol use, tobacco use and poor physical and mental health (Abbott & Volberg, 2000).

The 2006 KPMG Fraud Survey found 53 percent of large New Zealand organisations had experienced at least one fraud with an average loss of $479,000. Gambling was the motive in 8 percent of the cases.

A review of problem gambling in prison populations (Williams et al, 2005) found that one third of inmates met the criteria for problem or pathological gambling and that approximately 50% of the crime committed by this group was done to support gambling.

45% of pathological gamblers have committed a crime solely for the purpose of financing their gambling and 97% of pathological gamblers in prison report committing crimes to finance their gambling (Magoon et al, 2005).

Violence

Analysis of the NZ Health Behaviours Survey (Ministry of Health, 2007) indicated:

- 5.7% of NZers aged 12-65 years have experienced physical assault as a result of someone else's drinking.
- 5.3% have experienced sexual harassment as a result of someone else's drinking.

Substance abuse is strongly associated with domestic violence. It has been estimated that between 25% and 50% of men who were physically abusive to their partners have substance abuse problems (National Drug Research Institute, 2004).

An Australian report (Abbey et al, 2001) found that approximately half of sexual assaults are committed by men who had been drinking and approximately half of victims report they were drinking at the time.

In a 2005 study on assault on women 37% of respondents cited gambling as the reason for the assault (Balci and Ayranci, 2005).

Injury and Accidents

Alcohol misuse was responsible for 70% of accident and emergency hospital admissions and 3.9% of all deaths in NZ in 2000 (Greenfield, 2001).

A survey (Humphrey et al, 2003) in 2000 of people attending an emergency department in Auckland found that 35% of injured patients reported consuming alcohol prior to sustaining their injury. The risk of sustaining an injury was 2.8 times greater when alcohol was consumed.

On present trends, Wellington Hospital A&E expects 60% of drunk presentations this year to be women (Dr Paul Quigley quoted 2008 on www.alcohol.org.nz)

Between 2003 and 2005 driver alcohol impairment was a contributing factor in 30% of fatal crashes, 18% of serious crashes and 11% of minor injury crashes. For every 100 drunk drivers or riders killed in road crashes, 55 of their passengers and another 35 sober road users die with them.

An ACC report (Ameratunga et al, 2006) on a survey of blood donors estimated that participants who were diagnosed as problem drinkers had a 60% increased risk of having a motor vehicle related injury.

A recent file study (Lee and Snape, 2008) of 2581 patients reporting to Christchurch hospital over a 11 year period with facial injuries found that 49% were alcohol related of which most were young men injured by interpersonal violence.

Alcohol consumption when swimming, boating or engaged in water activities is considered a key factor in the high level of drowning by Pacific people according to Water Safety New Zealand (www.alcohol.org.nz).

Social Costs

Economists (Easton, 1997) have estimated that the sum of alcohol harm ranges from $1 billion to $4 billion per year. It costs the public health sector at least $655 million, crime and related cost over $240 million, social welfare over $200 million and other alcohol-harm related spending over $330 million. Lost productivity amounts to over $1.17 billion a year.

A 2008 BERL report (Slack et al, 2008) for NZ Police estimates illicit drug use in 2005/06 caused $1.31 billion of harm. This was made up of $1.09 billion of tangible resource costs (0.70 percent of GDP in 2005/06) and $217 million of intangible costs.

Inequalities

The high cost of substance misuse on individuals and families contributes to social inequalities and poverty. Prevalence rates are higher for people who are disadvantaged on a variety of social deprivation indexes.

A 2006 survey (Wilkens et al, 2006) of illicit drug use found that 19% of the frequent drug user group had lost a job, business or training course due to drug use.

THE ROLE OF TREATMENT IN REDUCING HARM

Goals of Treatment

- To minimise the harms associated with the use of alcohol and other drugs.
- To increase the individuals level of control over alcohol and other drugs, including the decision to abstain.
- To improve the health of service users as well as aspects of their personal and social functioning including physical and mental health, educational and employment status and quality of relationships.
- To reduce the negative consequences of substance misuse on families/whanau and society.

‘The process of recovery from problematic substance use is characterised by voluntarily sustained control over substance use which maximises health and well being and participation in the rights, roles and responsibilities of society[1]’.

Nature of Treatment Services

A wide range of treatment services exist from outpatient assessment and counselling, to day programmes, medical and social detox, short to long term residential and opioid substitution treatment. The type, place and length of treatment depends on the severity and complexity of the disorder and factors such as mental health, age, ethnicity and gender.

[1] Definition from UK Drug Policy Commission Recovery Consensus Group.

The Cost of Treatment

Typical examples of treatment costs[2] are:

- A brief intervention in one session for a person with a low level of problem - $120.
- One week in a medical detox unit - $4,396.
- A course of eight counselling sessions in a Community Alcohol and Drug Service - $1,202.
- A place on a methadone programme for one year - $2,047.
- A twelve week period of residential treatment - $6,888. Residents also would typically contribute $1,440 from their benefits towards accommodation costs over this period.
- A typical course of 12 individual counselling sessions for the treatment of problem gambling costs approximately $1680.

Numbers of People Receiving Treatment in NZ

Ministry of Health data indicates around 22,700 people receive help from a specialist AOD service per annum.

In the 2007/08 year 15,983 people called the New Zealand Alcohol Drug Helpline regarding an alcohol and/or other drug problem. 32% were people calling about someone else's alcohol and other/or drug use (Alcohol Drug Association New Zealand. 2008).

The Gambling Helpline had 1812 new gambling clients in 2007 plus 820 new significant other clients (Ministry of Health, 2008b).

The total number of full intervention face-to-face clients receiving help for problem gambling services in NZ for 2007 was 3930. A further 1238 clients received brief or early intervention services from these services (Ministry of Health, 2008b).

A significant unmet need for treatment exists for people with substance use disorders.

The percentage of those seeking help specifically for their substance abuse in the past twelve months was 12.4% in the NZ Mental Health Survey (Oakley Browne et al, 2006).

Help seeking was much lower for young people and Pacific peoples.

Among New Zealanders aged 12–65 years who had wanted to reduce their alcohol consumption during their lifetime, 2.2% had received help to reduce their alcohol consumption, and 1% had wanted help but had not received any.

Most people with lifetime substance use disorders eventually made contact if their disorder continued, however the median duration of delay from onset until contact was 16 years for alcohol abuse, seven years for alcohol dependency, eight years for alcohol abuse and three years for drug dependence.

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[2] Figures based on average contract prices supplied by Ministry of Health. Amounts are not intended as pricing guidelines for DHB treatment contracts.

The Christchurch Health and Development Study, a longitudinal study, found that only 7% of people with alcohol problems contacted treatment services for help (Wells et al, 2007).

In the NZ-ADAM survey (Hales and Manser, 2007) only 34% of people identified with a substance use disorder had received treatment at some time.

Information[3] supplied by the Ministry of Justice on drink driving convictions in 2006/07 indicate that of people convicted of excess alcohol only seven per cent were ordered by the judge to receive an AOD assessment. Of people with one conviction 1% were ordered to be assessed, of those with two convictions 6% were ordered and of those with four, 31% were ordered to be assessed.

Evidence for the Efficacy of Treatment

The very large multi-site National Treatment Improvement Evaluation Study in the US in 1997 (National Opinion Research Center, 1997) found that on average treatment resulted in:

- A reduction in expenditure on drugs by 70%.
- A reduction in clients troubled by alcohol use of 70%.
- A decline of 64% of percentage of clients arrested for any charge.
- A 15% increase in employment rates.
- Substantial reductions in other mental health problems and suicidal behaviour.
- Improved health and a decline in risky behaviours.
- Significant improvements in living conditions and social relationships.

Problem gambling service user statistics (Ministry of Health, 2008b) reveal that following face-to-face intervention over half of follow-up clients had substantial improvements in mental health and well-being related to their gambling behaviour. This was indicated by improvements in their sense of control, a reduction in the amount of money lost, and lower screening test scores.

The Benefit of Treatment to Society

Treatment can substantially reduce the health and social burden of substance abuse. In particular through:

- Reducing the level of criminal offending. Both crime as a result of intoxication and crime to resource the substance use.
- Reducing the costs associated with incarcerating offenders in prison ($76,650 per annum) or managing offenders in the community ($3,446 p.a.)[4].
- Reduce the numbers of people selling illicit drugs. Drug users are significant retailers.
- Reducing domestic and child abuse.

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[3] Information supplied by Roger Brooking from Ministry of Justice official information request.
[4] Figures from Department of Corrections Annual Report 2007.

- Reducing socio-economic inequalities.
- Improving the health and wellbeing of individuals, families and communities with a consequent reduction in the need for expensive medical, mental health and social services.
- Reducing the economic costs associated with substance use. People in recovery are more likely to contribute to the economy through employment and lowered beneficiary rates.

A recent UK study (UKATT, 2005) of two standard treatment therapies for alcohol problems found that they both *saved about five times* as much in expenditure on health, social, and criminal justice services *as they cost*.

"When we get one person to stop using drugs, others around them are also more likely to stop, meaning that every dollar spent on treatment goes much further than we ever thought". (Harvard Professor of Sociology, Nicholas Christakis, 2008)

The Case for Opioid Substitution Treatment (OST)

Eighty percent of frequent drug users were classified as dependent on opiates in the 2006 illegal drug use survey.

A NZ study in 2004 (Sheerin et al, 2004) of people entering OST found the mean cost of drugs used per week was $1299 ($67,548 per annum) before treatment. The mean financial gain from criminal sources for the same period was $1162 ($60,424 p.a.) and was derived from drug related crime, property crime and prostitution. Typically opioid dependent individuals not in treatment show low rates of employment (19%) as well as high reliance on government benefits (63%) and low levels of school qualifications.

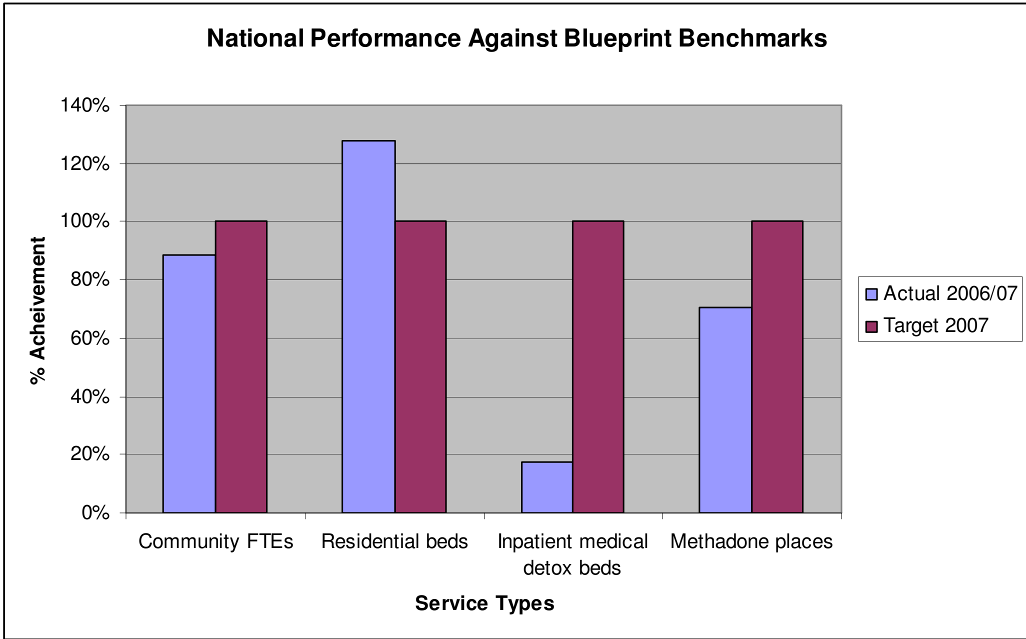
Outcome studies have clearly demonstrated that OST at $2047 per annum significantly reduces illicit drug use and associated criminal offending with improved health and social functioning. For example the 2004 study indicated that 60% of participants reported committing crimes every day prior to OST compared to 1% receiving OST. The study estimated that the total reduction in the cost of associated crime and imprisonment to society was an astounding $131,930 per person per annum. Consequently treatment reduces the very high social and financial burden to the community of opioid dependency.

A 2008 survey of waiting times for OST found that the mean time across all services from presentation to first dose was 90.3 days. The recommended guideline is a maximum of two weeks (Deering et al, 2008).

Bridging the Gap in Substance Use Treatment

The Mental Health Commission in 1998 developed a benchmark for the volume of mental health services required in New Zealand to provide adequate treatment and support for the three percent of the population with the most severe mental health disorders.

Based on the Blueprint Benchmark, alcohol and other drug services are under-delivered by approximately 26% nationally. On current prices this would cost approximately $34.1m to fund.



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