Action on Hepatitis C Prevention
Foreword

*Action on Hepatitis C Prevention* has been developed to help address the New Zealand Health Strategy priority population health objective:

*Minimising harm caused by alcohol and illicit and other drug use to individuals and the community.*


Hepatitis C has emerged in recent years as a worldwide health problem. As a result, the World Health Organization (WHO) called on member countries to develop hepatitis C prevention plans in 1999 (WHO 1999). In developed countries hepatitis C infection has become primarily associated with the use of injecting illicit drugs. New Zealand is no exception.

This action plan identifies priority areas for action at a national, regional and local level by government agencies, and in a local area by District Health Boards, service providers and others. It identifies policies or programmes that can be delivered in the near future within existing resources, and those that will require extra resources before they can be implemented.

Many of the action points in this plan focus on the need to actively involve affected communities and health service users in developing and delivering their own prevention programmes by building their capability and capacity. An emphasis is also placed on adopting a comprehensive approach involving different parts of the health sector and other relevant sectors. These are key focus areas for successful public health action.


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1 Introduction

1.1 The Strategic Framework for the Health and Disability Sector

The New Zealand Health Strategy (Minister of Health 2000) and the New Zealand Disability Strategy (Minister for Disability Issues 2000) together set the overarching guide for planning, developing and funding health and disability services in New Zealand.

More detailed strategies for services, health issues or population groups already exist or are being developed. They include the Primary Health Care Strategy (Minister of Health 2001b), He Korowai Oranga: Māori Health Strategy (Minister of Health 2001a), the Health of Older People Strategy (Minister of Health 2002a) and the Pacific Health and Disability Action Plan (Minister of Health 2002b). These strategies provide more detailed guidance for the health and disability sector, and in particular for District Health Boards (DHBs), which are directly responsible for the health and participation of their local communities, on how to achieve the goals of the New Zealand Health Strategy and New Zealand Disability Strategy.

The more specific strategies provide the basis for other policy initiatives that the Ministry of Health develops, often in association with other government and sector agencies. These initiatives include:

- action plans to address specific health and disability issues, such as the Integrated Approach to Infectious Disease: Priorities for Action 2002–2006 (IAID) (Ministry of Health 2001)
- toolkits to assist DHBs to address the priority objectives of the New Zealand Health Strategy
- research and evaluation plans
- guidelines for service development.

Figure 1.1 shows the framework for implementing the Government’s health and disability goals.
1.2 Implementation of strategies

Implementation of the different strategies varies, depending on the aims and objectives of each one. Some strategies have very specific goals and objectives, and have specific funding allocated to them – for example, reduced waiting times for public hospital elective surgery. Other strategies are prioritised and resourced incrementally – for example, the Primary Health Care Strategy and Action on Hepatitis C Prevention.

Their aims and objectives may include:

- providing guidance for the Ministry of Health and/or DHBs on prioritising services with existing funding
- advising DHBs and other providers on new ways to organise and deliver services
- promoting behaviour change among health care providers and the public
- identifying priorities for action when resources become available.

1.3 Acknowledging the special relationship between Māori and the Crown under the Treaty of Waitangi

Central to the Treaty relationship and implementation of Treaty principles is a common understanding that Māori have an important role in implementing health strategies for Māori, and that the Crown and Māori relate to each other in good faith with mutual respect, co-operation and trust.

Māori should be able to define and provide for their own priorities for health, and develop the capacity to deliver services to their communities.
The relationship between Māori and the Crown in the health and disability sector has been based on three key principles:

- participation at all levels
- partnership in service delivery
- culturally appropriate practices.

Not only is it important to improve Māori health status, but other goals based on concepts of equity, partnership, and economic and cultural security must also be achieved.

It is therefore important to ensure that services provided for Māori who are injecting drug users and for other Maori at risk reflect the three key principles.

### 1.4 The context of the Hepatitis C Action Plan

In 1998, the World Health Organization (WHO) commissioned a report on the global surveillance of hepatitis C. This report made recommendations for the prevention and control of the disease (WHO 1999). One of the key recommendations was that each country, irrespective of its economic status, should develop a plan for the primary prevention of new hepatitis C infections and for the prevention of hepatitis C-related chronic liver disease through identification, counselling and treatment of those already infected. In particular, the report emphasised the importance of harm reduction programmes as part of national hepatitis C prevention programmes.

As a result, national programmes for prevention and control have been developed in the United Kingdom (UK), United States (US), Canada and Australia. These national programmes have several common elements:

- the major role of public health in ensuring that preventive strategies are in place
- the importance of dealing with hepatitis C in the context of other blood-borne viruses
- the focus on injecting drug use as a major risk factor.

The Ministry of Health in its IAID recommended the development of a national action plan to optimise the prevention and treatment of hepatitis C. The IAID identifies two key areas for control of blood-borne infections: ensuring the safe supply of blood and blood products; and minimising the transmission of diseases through non-transfusion routes, primarily injecting drug use.

The hepatitis C action plan is a step-by-step outline of what has to be done in order to achieve the ultimate goals of:

- reducing the transmission of hepatitis C
- reducing the personal and social impact of the disease.

The action plan is being developed in two phases. This first phase focuses on strategies for disease prevention, taking account of the Ottawa Charter framework (WHO 1986) (see section 3.3).

The second phase of the plan, to be developed in the future, will review the management of the disease with particular focus on the cost-effectiveness of treatments.
A working group comprising individuals directly involved in the management of hepatitis C in New Zealand was formed to advise on the essential components of the action plan. Members of the group included representatives from:

- Ministry of Health
- New Zealand Drugs Foundation
- hepatitis C resource and support centres
- alcohol and drug services
- needle exchange programmes
- Institute of Environmental Science and Research
- clinicians involved in the management of individuals with hepatitis C.

The Ministry of Health is grateful for their invaluable advice.

Consultation on the document *Action on Hepatitis C Prevention: a discussion document* showed widespread support for the importance of defining priorities for the future. These are addressed in Chapter 5 as action points, timelines and the responsible agencies.

For some action points, resources are not yet available to commence activity and it is not therefore possible to set dates for their completion. Such dates will be set when resources become available. These action points are shown in italics to differentiate them from activities that can be carried out within existing resources.
2 Hepatitis C Infection

2.1 Overview

Hepatitis C is a viral infection of the liver. It is a global health problem of significant clinical, personal and public health importance. Currently, it is estimated that as many as 170 million individuals, or about 3 percent of the world’s population, are infected with the hepatitis C virus and that between three and four million persons are newly infected each year (WHO 1999). In New Zealand, an estimated 25,000 people are currently living with the virus, and this number is predicted to increase by 50 percent in the next 10 years (Nesdale et al 2000).

Hepatitis C is spread primarily by blood-to-blood contact. Previously, unscreened blood and blood products were a major source of infection. Since the introduction of screening of donated blood in 1992, the risk of hepatitis C transmission in New Zealand through blood and blood products has become very remote (Bullen 1997). Today, in New Zealand as in other developed countries, the use of injecting drugs has become the single most important risk factor for acquiring hepatitis C, and accounts for around 80 percent of infections (Liang et al 2000).

Chronic infection with hepatitis C can lead to years of ill health, reduced quality of life and, in some instances, social isolation. Some people with chronic infection are at risk of developing cirrhosis, cancer of the liver and liver failure.

In New Zealand, for every 1000 injecting drug users of European ethnicity, the costs associated with the development of long-term complications of hepatitis C have been estimated at between $6.5 and $19 million (discounted at 3 percent) (Ian Sheerin, Christchurch School of Medicine and Health Sciences, University of Otago, personal communication, March 2002).

Treatment with interferon and ribavirin combination antiviral therapy can produce a sustained viral response in an increased number of patients (ie, no detectable virus in the blood), thus preventing progression to chronic liver disease (Kjaergard et al 2002). Although such treatments have resulted in improved cure rates for hepatitis C, their use is tempered by their varying efficacy in different groups of patients, their availability, entry criteria and side effects. Unlike hepatitis B, no hepatitis C vaccine is currently available and the development of an effective vaccine is not imminent. The key to control of hepatitis C therefore lies in prevention programmes focusing on those at risk of infection, and those already infected, to avoid further transmission of the disease.
2.2 Natural history of infection

Hepatitis C was first identified in 1989. Before then, it was referred to as ‘non-A, non-B’ hepatitis or ‘post-transfusion’ hepatitis. The natural history of hepatitis C is not uniform and has been difficult to assess. This is because the disease is characterised by silent onset (in most infected individuals), a high rate of viral persistence and the potential for progressive chronic liver disease. This progression too is most commonly a silent process, which may take 20 to 40 years to reach its end-point (Alter and Seef 2000) and is not uniform. Differences in disease progression are likely to be related to host factors, including genetic differences, age at infection and alcohol intake (ibid). The role of other factors, such as viral genotype, co-infection with hepatitis B virus or human immunodeficiency virus (HIV) and gender, is also important but less well understood (WHO 1999).

Acute hepatitis C infection is often asymptomatic or very mild. Symptoms may include fatigue, nausea, abdominal discomfort, jaundice, loss of appetite, and muscle and joint pains. Acute infection is spontaneously cleared by between 15 and 25 percent of infected individuals within two to six months. Higher rates of clearance are associated with childhood infection, whereas lower rates are seen in adult injecting drug users (Alter and Seef 2000).

Around 75 percent of infected individuals develop chronic infection (defined as abnormal liver enzymes and/or viraemia for more than six months). Many patients with chronic infection report a reduced sense of wellbeing and a reduced quality of life (Crossen et al 1999; Ware et al 1999). The progression of chronic infection is usually slow. Estimated outcomes of hepatitis C infection (Commonwealth Department of Health and Aged Care 2001) suggest that, of every 75 people chronically infected, approximately:

- 40 to 60 will develop some liver damage and experience symptoms (on average after 15 years)
- eight to 20 people will develop cirrhosis (on average after 20 to 40 years)
- two to five people who developed cirrhosis will develop liver failure or liver cancer (five to 10 years after the onset of cirrhosis).

2.3 Transmission

Hepatitis C transmission is predominantly parenteral. In developed countries, the primary modes of transmission are shared drug-injecting equipment, and infected blood products (in this country, prior to screening of blood products in 1992).

Hepatitis C is not transmitted by social contact such as shaking hands. Similarly, preparing food and sharing crockery, cutlery or toilet facilities do not pose transmission risks.
2.3.1 Transmission via transfusion

Transfusion of unscreened blood and blood products and the use of clotting factors that were not treated to inactivate viruses have resulted in the transmission of hepatitis C to many individuals throughout the world. In developing countries, erratic or non-existent screening policies continue to result in disease transmission (WHO 1999).

With the development of sensitive and specific screening tests for hepatitis C, the risk of transmission by transfusion has been dramatically reduced. In New Zealand, the estimated risk for transmission is less than one case in 100,000 transfusions, or less than one case per year (New Zealand Blood Service 2000).

2.3.2 Transmission via non-transfusion routes

Via injecting drug use

Transmission of hepatitis C via sharing and reusing needles and syringes during the injection of drugs is by far the most common route of transmission. Evidence suggests that sharing other drug-injecting paraphernalia (cookers and cotton) has a significant role in transmission (Hagan et al 2001).

A few other studies have postulated that hepatitis C infection can also be associated with a history of intranasal cocaine use, the mode of transmission possibly being sharing contaminated straws. This, however, is not well proven.

Sexual transmission

Sexual transmission of hepatitis C is rare. Among monogamous couples, infection has been found in less than 1 percent of spouses without other risk factors (Zylberberg et al 1999). Transmission is more likely among individuals with high-risk sexual behaviours who have practised unsafe sex (eg, people who have had multiple sexual partners) (American Academy of Paediatrics 2000). Alternative risk factors, however, may account for many apparent cases of sexual transmission. Some people may find it difficult to discuss past injecting drug use with health professionals and, as a result, attribute their infection to other causes.

Sporadic percutaneous transmission

Percutaneous transmission includes skin piercing, tattooing and, for health care workers, exposure via needles or sharps. This transmission risk of between 2 and 5 percent is intermediate between HIV (0.3 percent) and hepatitis B virus (19–30 percent) (Patrick et al 2001). For tattoos, higher risk of transmission has been associated with multiple rather than single-site tattoos and with tattooing performed by non-professional rather than professional tattooists (Nishioka et al 2002). Although this route of transmission is biologically plausible, it is likely that tattooing and piercing account for a small fraction of cases, and that it is limited to certain settings, such as prisons and parlours, where the practitioners do not apply proper infection control procedures. Other plausible but
apparently rare routes of transmission include direct blood-to-blood transmission in contact sports (Bourliere et al 2000).

Transmission among family contacts is uncommon but may occur through inadvertent percutaneous (eg, razors) or mucosal (eg, toothbrushes) exposure (American Academy of Paediatrics 2000).

**Transmission in hospital settings (nosocomial transmission)**

Transmission of hepatitis C can occur during medical and dental procedures in which instruments have been inadequately sterilised (eg, endoscopic procedures). There have also been case reports of hepatitis C acquired by conjunctival splash (Rosen 1997). However, with current infection control practice, the risk of transmission in hospital settings is considered to be very remote. The transmission of hepatitis C from infected health care workers is also rare (American Academy of Paediatrics 2000).

**Vertical transmission**

Although vertical (mother to baby) perinatal transmission occurs, the risk is low. In a New Zealand study, only 6.6 percent of infants born to HIV-negative and hepatitis C-positive mothers acquired the infection (Croxon et al 1997). In a recent UK study, the vertical transmission rate was 6.7 percent (Gibb et al 2000). Little information exists about the timing of mother-to-child transmission, although some evidence suggests it occurs around the time of delivery. Maternal co-infection with HIV is associated with a high vertical transmission rate of hepatitis C. No evidence exists to suggest an increased risk of hepatitis C transmission through breastfeeding (Zanetti 1999). For most infected children and adolescents, no specific source of infection can be identified.

**Diagnosis**

Because of the non-specific nature of symptoms associated with acute hepatitis C infection, most cases remain undiagnosed until patients receive screening because of known risk factors or the detection of abnormal liver function. In addition, infectious disease testing carried out as part of routine blood-donation accreditation detects a number of previously undiagnosed cases.

Two types of test are available for the laboratory diagnosis of hepatitis C infection: antibody assays for hepatitis C, and assays that can detect evidence of the actual virus. False negative antibody assay results early in the course of infection result from the prolonged interval between exposure and seroconversion (development of antibodies to hepatitis C), the interval being commonly referred to as the ‘window period’.
2.4 The epidemiology of hepatitis C in New Zealand

It is difficult to quantify accurately the incidence (the number of new infections each year) or prevalence (the total number of people currently infected) of hepatitis C infection in New Zealand. This is partly because the disease is under-diagnosed. Several factors (Nesdale et al 2000) contribute to this, including the:

- frequently asymptomatic nature of the infection
- lack of awareness of exposure to infection
- illegal nature of injecting drug use
- low utilisation of health care by some high-risk individuals.

The main sources of hepatitis C data in New Zealand are the national system of disease notification database (EpiSurv) and epidemiological studies, which include prevalence, seroconversion and disease modelling.

2.4.1 Incidence and prevalence

Acute hepatitis C became notifiable in June 1996. Notification data provide information on the proportion of the population who have tested positive for hepatitis C infection and who have other evidence suggesting this is a new infection. Since 1996, between 60 and 100 cases of hepatitis C have been notified each year. Surveillance of new or acute hepatitis C infections remains difficult, since acute infection is frequently asymptomatic. Notifications of acute hepatitis C are known to underestimate significantly the actual number of new infections that occur each year (Healthcare A+ 1997). As a result they are a poor surrogate marker for disease incidence. Disease modelling studies suggest that 1280 new infections per year (around 15 times the number notified) is a more accurate estimate (Nesdale et al 2000).

Several epidemiological studies have estimated the prevalence of hepatitis C in New Zealand (see Table 2.1). These estimates are comparable with those from other developed countries. Among blood donors and the general population, prevalence is low, but in certain sub-populations (eg, injecting drug users) the prevalence is much higher.

Table 2.1: Hepatitis C prevalence in selected New Zealand populations

<table>
<thead>
<tr>
<th>Population (reference)</th>
<th>Prevalence (%)</th>
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<tr>
<td>Injecting drug users:</td>
<td></td>
</tr>
<tr>
<td>In drug treatment(^{1-3})</td>
<td>73–84</td>
</tr>
<tr>
<td>Haemophiliacs(^{4})</td>
<td>72</td>
</tr>
<tr>
<td>Needle and syringe exchange programme attendees(^{5})</td>
<td>45–53</td>
</tr>
<tr>
<td>Injecting drug users:</td>
<td></td>
</tr>
<tr>
<td>Not in drug treatment(^{6})</td>
<td>42–80</td>
</tr>
<tr>
<td>Injecting drug users aged 25 and under(^{7})</td>
<td>30</td>
</tr>
<tr>
<td>Prison inmates(^{8})</td>
<td>23</td>
</tr>
<tr>
<td>Sexually transmitted disease clinic attendees(^{8})</td>
<td>3</td>
</tr>
<tr>
<td>Blood donors(^{9,10})</td>
<td>0.03–0.87</td>
</tr>
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\(^{1}\) Woodfield et al 1993 \(^{2}\) Robinson et al 1995 \(^{3}\) Chetwynd et al 1995 \(^{4}\) Miller et al 1993 \(^{5}\) Kemp and MacDonald1999
\(^{6}\) Kemp et al 1998 \(^{7}\) C Brunton, personal communication, March 2002
\(^{8}\) McKenna et al 1994 \(^{9}\) Ghosh 1998 \(^{10}\) New Zealand Blood Transfusion Service 1999


2.4.2 Age and sex

Although it not possible accurately to extrapolate rates from notification data, crude rates of hepatitis C are highest in males and those aged 20–49 years (see Figure 2.1).

Figure 2.1:  Hepatitis C notification rates by age and sex, 1996–2001

![Average annual rate per 100,000](chart)

2.4.3 Ethnicity

Two seroprevalence studies among injecting drug users in New Zealand (Chetwynd et al 1995; Kemp et al 1998) have reported ethnicity data. These showed that, in Christchurch and Wellington, 91 percent and 89 percent respectively of injecting drug users were Europeans. Recent data from a review of needle/syringe exchange clients indicated that 81 percent identified as European, 11 percent as Māori and 2 percent as Pacific Islanders (see Appendix 2). Data for 1998 published in New Zealand Drug Statistics provide an additional source of ethnicity data. According to this, Non-Europeans accounted for 89 percent of all opiate-related hospitalisations (New Zealand Health Information Service 2001).

Where ethnicity is recorded for notified hepatitis C cases, the majority are European (76%). The remaining cases are Māori (15%), ‘Other’ ethnicity (7%) and Pacific peoples (1%). It is possible that some immigrant populations in New Zealand may also have been at risk of acquiring hepatitis C through unscreened blood transfusions.
2.4.4 Trends

In 1997 and 1998, the Ministry of Health funded serological surveys (finger prick bloodspot test) to assess the rates of HIV, hepatitis C and hepatitis B in needle exchange attendees. These studies (Kemp and MacDonal d 1999) found that less than 1 percent of those tested in both years were HIV positive. However, 53 percent in 1997 and 45 percent in 1998 tested positive for hepatitis C. These and other studies clearly indicate that hepatitis C is much more prevalent than HIV in the injecting drug user population in New Zealand. It is important to repeat such studies to ascertain whether the reduction in hepatitis C prevalence among users of community-based needle exchanges is sustained. A repeat study is planned for March 2003.

Periodic monitoring of hepatitis C prevalence in the wider community, using practical systems for serially testing populations at low risk and higher risk, needs to be developed. This is dealt with further in Chapter 5.

2.4.5 Sub-populations at high risk

Injecting drug users

In New Zealand, an estimated 13,500–26,600 people are opioid-dependent (Sellman et al 1996). As not all those who inject drugs are dependent or opioid users, the population of injecting drug users is likely to be larger. The Consumer Survey and Returns Audit 2000 (Needle Exchange New Zealand Trust 2000b) of community-based exchanges (commissioned under the 1999 contract between Needle Exchange New Zealand Trust and the Health Funding Authority) revealed that 74–77 percent inject opiates, and 21–24 percent inject stimulant drugs, primarily amphetamine sulphate, methamphetamine or Ritalin. Other useful findings from this survey are summarised in Appendix 2.

In the most recent national survey of drug use in New Zealand (Alcohol and Public Health Research Unit 2002), 4.3 percent of respondents reported ever having tried opiates and 0.6 percent were ‘current users’ in 2001. This proportion was unchanged from the previous survey in 1998. However, the proportion of those ever trying ‘any stimulant’ (including cocaine, crack, amphetamine and methamphetamine) increased from 9 percent in 1998 to 12 percent in 2001. Increases in the ‘last year’ use of stimulants were found among those aged 15–17 years and 20–24 years.

Within the injecting drug user population, the prevalence of hepatitis C is around 120–280 times the prevalence found in the general population (Chapman et al 2000). The prevalence of hepatitis C among New Zealand injecting drug users (42–84%) is comparable with that reported from other countries (MacDonald et al 2000; Crofts 2001; Hope et al 2001).

High prevalence is largely attributable to the sharing of needles and syringes, but there is increasing evidence to implicate the sharing of other drug-related paraphernalia such as filters and spoons (Hagan et al 2001). The highly transmissible nature of hepatitis C means that an injecting drug user sharing a needle used by another injecting drug user of unknown infection status is exposed to 150–800 times the risk of infection with hepatitis C compared with HIV.
The length of injecting career largely determines the variation in prevalence among injecting drug users. Among those who have been injecting for two years or less, the reported prevalence is around 20 percent. However, among those attending methadone maintenance clinics (whose average duration of injecting is around 10 years), prevalence may be as high as 95 percent (Crofts 2001).

The average age of first injecting is estimated to be around 18 years. In a study of 39 injecting drug users who were seronegative for hepatitis C at the study’s outset, nine (23%) had seroconverted over a two-year period. Higher rates of seroconversion were associated with young age (less than 20 years), use of multiple drugs, needle sharing and a history of imprisonment (Brunton et al 2000).

The number and variety of injecting drugs available mean that injecting drug users can come from diverse socioeconomic backgrounds. In particular, with the apparent increase in the availability and use of amphetamines, different types of people are likely to be experimenting with injecting.

Another population of injecting users potentially at risk is elite athletes using anabolic-androgenic steroids in sport (Aitken et al 2002).

Injecting drug users are difficult to reach with prevention and control strategies because they are engaged in illicit activity, are often marginalised and may be subject to, or fear, discrimination by the community and by health professionals. It is important to ensure that existing peer-driven programmes are able to extend their reach to this increasingly diverse population.

Prison inmates

For the provision of custodial services in 2002/03, the Department of Corrections expects to provide for an estimated throughput of 7,527 new inmates, representing an average muster of 5,034 inmates (Department of Corrections 2002). The prevalence of hepatitis C in New Zealand’s prisons is scantily documented. However, evidence exists of high-risk behaviours for the transmission of blood-borne viruses among inmates. These include injecting drug use and tattooing with inadequately disinfected equipment (Crofts et al 1995). In one study of injecting drug users (Kemp et al 1998), 46 percent had been in prison once and 24 percent more than three times. Of those previously imprisoned, 38 percent had shared needles and syringes during their incarceration. In another survey (Brunton 1994), over half of all inmates had injected drugs at some time, and on average for just over six years.

The prevalence of hepatitis C among prison inmates is well documented in other countries. In the US (Spaulding et al 1999) and Ireland (Alwright et al 2000), 39 percent and 37 percent respectively of inmates are positive for hepatitis C. In the latter study, 20 percent of injecting prisoners reported first injecting in prison.

In prisons, because needles are difficult to come by, numerous strangers may share one needle (Long et al 2001). This sharing behaviour is different from sharing in the community, which is more likely to occur among close contacts.
Tattooing under non-sterile conditions is a risk factor for transmission of hepatitis C among prisoners. Tattooing in prison has been demonstrated to be an independent risk factor for hepatitis C among those who had never injected drugs (ibid). The probability of being tattooed is strongly correlated with length of imprisonment (ibid).

**Blood product recipients**

Blood product recipients in developing countries have a risk of transfusion-transmitted hepatitis C infection of between 6 and 15 percent (Cancre et al 1999). Travellers to such countries should therefore be advised of these risks. However, in New Zealand, the risk to recipients is very low since routine screening was introduced in 1992.

The New Zealand National Hepatitis C Lookback Programme (Bullen 1997) was undertaken at the initiative of the Ministry of Health between 1994 and 1996. The programme’s primary aim was to trace and test recipients of blood products potentially contaminated with hepatitis C and transfused between August 1990 (when the introduction of blood donor screening for hepatitis C was recommended by expert advisory committees) and July 1992 (when screening was available nationwide).

The programme identified 56 people as having chronic hepatitis C infection contracted from transfusions given between August 1990 and July 1992. A further 76 people were found to be hepatitis C antibody positive without evidence of chronic infection.

This finding is consistent with estimates made by the Ministry of Health before the programme was implemented.

In their 1992 report, *Inquiry into Matters Relating to the Safety of Blood and Blood Products in New Zealand*, Morey and Rodger [Department of Health 1992] stated that ‘A study conducted in 1990 revealed that 70 percent of haemophiliacs were hepatitis C positive. That is, infection took place for 70 percent of the at-risk population before any screening tests were available.’
3 Approach to Hepatitis C Prevention

3.1 Harm minimisation

Harm minimisation is central to approaches to drug abuse and hepatitis C prevention. Harm in this context refers to the consequences associated with injecting drug use, which include exposure to blood-borne viruses and overdose, as well as social, psychological and legal harms. Three principles underlie harm minimisation (Commonwealth Department of Health and Aged Care 2001): supply reduction, demand reduction and harm reduction (see Figure 3.1).

Figure 3.1: Principles underlying harm minimisation

Supply reduction
Demand reduction
Harm reduction

Supply reduction strategies include the disruption of production, importation and distribution of illicit drugs – for example, through legislation. Prohibition may minimise harm when the drug in question is in low demand, controls are difficult to subvert and similar drugs are less toxic, or not available. However, supply reduction policy requires careful implementation, since excessive restriction may lead to an increase in the ‘street value’ of illicit drugs, associated increases in drug-related crime and multiple drug use among some users (Wodak 1992).

Demand reduction means reducing the demand for and uptake of harmful drug use. Examples of demand reduction strategies for injectable drugs are substitution treatments such as methadone maintenance.

Harm reduction focuses on reducing the harm associated with potentially risky activities. Harm reduction provides people who inject drugs with the capacity and resources to make informed decisions about their drug-using practices. It does not condone the use of illicit drugs but accepts that drug use continues to exist despite legal prohibition and that, in the absence of vaccination or effective cures, behavioural change is an important mechanism for restricting the spread of blood-borne viruses.
3.2 Harm minimisation strategies in practice

In addition to controlling supply, examples of harm minimisation strategies are:

- needle and syringe exchange programmes (NSEPs) and strategies promoting safer injecting behaviour
- methadone maintenance programmes
- education, support and counselling for injecting drug users undergoing treatment or people living with hepatitis C.

3.2.1 Needle and syringe exchange programmes

NSEPs supply clean needles and syringes and other drug-related paraphernalia with the aim of reducing the sharing of injecting equipment and other high-risk behaviours among injecting drug users. NSEPs also provide opportunities for health promotion, peer education, drug counselling and a point of entry into additional treatment services. These programmes operate in several countries (Loxley 2000; Needle Exchange New Zealand Trust 2000a), including New Zealand.

Studies have attempted to measure the impact of NSEPs on blood-borne virus transmission. Although there is good evidence for the success of NSEPs in reducing the transmission of HIV, the evidence for reduction in hepatitis C transmission is mixed. Some studies have reported lower rates of hepatitis C among NSEP attendees (Goldberg et al 1998; Hagan et al 1995), while others have reported no effect (Coutinho 1998; Mansson et al 2000).

An evaluation of the cost-effectiveness of NSEPs (Pollack 2001) has shown that, by themselves, NSEPs are unlikely to control the transmission of hepatitis C. The three main reasons for this are:

- hepatitis C is highly transmissible
- a large reservoir of infected individuals already exists
- other drug-injecting paraphernalia probably plays a role in transmission.

In order to reduce the transmission of hepatitis C, injecting drug users must always use sterile injecting equipment. Reasons for unsafe injecting behaviour may include:

- lack of knowledge
- opportunistic use of drugs
- fear of buying equipment
- peer pressure not to adopt safer practices
- lack of accessibility of equipment
- cost
- limited appropriate settings for safer use (eg, in custodial settings).
Although NSEPs alone may not control hepatitis C, evidence exists that they significantly reduce the reported borrowing and lending of injecting equipment (Cox et al. 2000). The value of NSEPs is also apparent when they are combined with other harm reduction strategies. For instance, a greater than twofold reduction in hepatitis C infection was associated with the expansion of an NSEP which included increasing the number of outreach workers and counsellors (Smyth et al. 1999).

Although NSEPs are widely accessible in the community, they have not been routinely established in prisons internationally because of concerns about the security and safety of both staff and inmates. The potential risks associated with NSEPs in this environment include intentional and non-intentional needle-stick injury, use of needles as weapons against custodial staff to facilitate escape, and increase in the dealing or consumption of drugs. However, a pilot prison NSEP (Nelles et al. 1999) in Switzerland produced no increase in the consumption of drugs, in violence against staff or in rates of injury. The programme resulted in a reduction in the exchange of syringes between prison inmates and in the number of new cases of hepatitis and HIV. A further positive effect was improved overall health status. As a result, this programme has now been instituted.

A harm reduction intervention adopted in some European countries is ‘safer injecting rooms’. These are legally sanctioned and supervised facilities where injecting drug users can inject pre-obtained illicit drugs. Within these facilities, the injectors are provided with access to health care and other services as well as sterile injecting equipment. The reported benefits of these facilities include improvements in the health and social functioning of clients and reductions in public disorder (e.g., drug injection, intoxication and discarding of needles in public), overdoses and risk behaviours for disease transmission (Dolan et al. 2000).

The use of bleach to clean injecting equipment has been also encouraged as another harm reduction strategy in the control of transmission of hepatitis B and HIV. However, the effectiveness of bleach as a viricidal agent against hepatitis C remains unclear (Charrel et al. 2001).

### 3.2.2 Methadone maintenance

Methadone maintenance treatment (MMT) is considered the most appropriate and effective opioid substitution treatment for minimising the harms associated with opioid use. MMT aims to minimise withdrawal symptoms, reduce opioid drug craving and block the effects of injected opioids.

MMT has been shown also to have a significant and positive impact on drug-related harm. In an Otago study of methadone programme clients (Dore et al. 1999), 64 percent reported no opiate use in the three months prior to review. Among the remaining 36 percent, opiate use reduced significantly. Rates of sharing injecting equipment reduced by almost 90 percent. Clients reporting no current use of illicit benzodiazepines increased by 85 percent. Heavy binge drinking at least once a week reduced by almost 75 percent, and use of other illicit drugs by almost 90 percent. Drug-related convictions reduced by almost 60 percent, and accidental drug overdoses by over 90 percent. These results underline the importance of making quality methadone programmes readily accessible within the health system.
Other studies also have shown that participation in MMT is related to less frequent sharing, fewer sharing partners and less frequent injecting (Thiede et al 2000). MMT has been shown to decrease HIV transmission among injecting drug users when doses are high enough to reduce needle use significantly. However, as with NSEPs, the evidence for hepatitis C is much less encouraging. A high proportion of those on MMT are already infected with hepatitis C. Because the prevalence of hepatitis C among methadone clients on entry is so high, it is difficult to show through short-term studies that MMT is effective in prevention.

Logically, given the above factors, MMT should have an important role. As infection with hepatitis C is closely linked to the duration of injecting, methadone is likely to be more effective if introduced earlier in the career of the opiate-using injector.

### 3.2.3 Education and counselling

Peer education forms an important part of the successful harm reduction strategy for reducing and preventing the transmission of HIV in New Zealand and elsewhere. Peer educators are people with direct experience of drug use and the drug-using culture, and are well placed to give practical information about reducing the risks associated with injecting drugs (Commonwealth Department of Health and Aged Care 2001). Peer education has been implemented through the development of peer-based education resources (comics, pamphlets, etc) and as part of the NSEP and hepatitis C support group programmes. Peer education is likely to be particularly effective during the early stages of an injector’s career, before they come into contact with community-based services for injecting drug users. Peer education programmes have therefore emphasised the need to identify and provide advice to new and young injectors.

Hunt et al (1998) have reported a peer-based intervention aimed at current injecting drug users. The approach raises the awareness of risks and helps to increase consideration and prior anticipation of the possibility of initiation of others into injecting drug use. The goals of intervention are to:

- reduce behaviours that might increase the initiation of others
- increase competence at managing initiation requests
- increase disapproval of initiation
- increase reluctance to initiate others.

Evaluation of the intervention showed that it was acceptable to both drug users and drug workers alike and that the number of those being initiated was reduced. Such interventions may be an important component of any prevention strategy.

Primary care settings provide important opportunities to give out information on safe behaviours, testing and support for injecting drug users. However, injectors may not raise issues about injecting with primary practitioners out of a fear of judgmental attitudes or discrimination. It is important for primary practitioners to be well informed on issues about injecting drug use and hepatitis C so they can provide appropriate advice.
Opportunities for one-on-one prevention education, including the offer of hepatitis C testing, may easily be missed. A recent study of a cohort of 117 young (less than 25 years old) injecting drug users recruited in Wellington and New Plymouth revealed that one-third had seen a doctor in the previous four weeks for reasons other than issues related to drug use, and just over half had seen a doctor in the previous three months (C Brunton, personal communication, April 2002).

Given the young age at which individuals begin injecting and experimenting with body piercing and tattooing (sometimes without proper sterilisation), secondary schools provide a potentially important setting for health and drug education (Lindsay et al 1999). While no New Zealand data exists on hepatitis C knowledge among school students, an Australian study (ibid) revealed poor knowledge of hepatitis C. There is anecdotal evidence that injecting drugs is considered a taboo subject. In addition, it is widely recognised that the mere provision of information is seldom effective in bringing about sustained healthy behaviours in young people unless it is a component of more comprehensive multifaceted programmes. In overseas studies, such programmes have been demonstrated in some instances to reduce the use of drugs such as marijuana and tobacco (Chetwynd 1997). The impact of such programmes on the uptake of injectable drugs is unknown.

### 3.3 The direction of prevention

There is little published evidence that any single programme or policy will have a significant impact on preventing transmission of hepatitis C among injecting drug users. The best approach may be to combine multiple programmes to reduce both the prevalence of injecting drug use and transmission among active injectors. This multi-dimensional approach is so far untested for the prevention of hepatitis C. However, the approach has worked in other health areas and with other populations – for example, in reducing injuries and deaths due to road accidents, and in minimising the transmission of HIV/AIDS.

Our knowledge of ways of preventing other diseases in the recent past (such as HIV) or risk factors for disease (such as obesity) has been equally scanty, but this has not precluded action to deal with these significant health threats. In the case of HIV, for example, such action over 15 years in New Zealand has proved to be very effective in minimising transmission among injecting drug users and other populations.

Such programmes were developed on the best theoretical and practical evidence at the time, using an internationally accepted framework – the Ottawa Charter – and refined as further evidence became available. The Ottawa Charter framework for health promotion recognises the necessity of adopting strategies that are adapted to the needs of individual countries and which take account of different social, cultural and economic systems.

The prevention of hepatitis C requires a co-ordinated strategy which is underpinned by the principles of the Ottawa Charter.
4 Current Programmes for Prevention in New Zealand

4.1 Primary preventive strategies

4.1.1 Policy on illicit drug use

The _National Drug Policy_ (Ministry of Health 1998b) provides the strategic direction to reduce and prevent drug-related harm.

Control over the supply of injectable drugs forms a major part of the international and New Zealand response to reduce drug-related harm.

New Zealand has ratified all three major United Nations (UN) international drug control treaties, and these are reflected in domestic policy and programmes:

- the Single Convention on Narcotic Drugs 1961 (as amended by the 1972 Protocol)
- the Convention on Psychotropic Substances 1971
- the Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances 1988.

Control over supply involves border control by New Zealand Customs, action within New Zealand by the Police, and international liaison to reduce the exportation of injectable drugs to New Zealand.

The Misuse of Drugs Act 1975 and the Medicines Act 1981 are the key Acts applying to the control of drugs within New Zealand. Control over commonly used prescription drugs of abuse is maintained through their current controlled-drug status and monitoring of prescriptions by Medsafe.

4.1.2 Providing information to groups at risk

**Education in community settings**

Health education material is provided to injecting drug users by community-based needle exchange centres in most regions. These exchanges have played a vital role in providing prevention information and services to injectors, and many also provide information to other organisations.

Hepatitis C support and resource centres in Auckland and Christchurch provide information to at-risk groups through targeted educational programmes. For example, the Auckland support centre has piloted an infectious diseases programme in Mt Eden women’s prison which includes the distribution of information, open discussion and role-plays relating to hepatitis and HIV. The centres also promote general public awareness through regular newsletters, comics and a free telephone information service. Some services are provided in other areas.
The New Zealand Drug Foundation is a non-government organisation that aims to improve communication between public health organisations about issues relating to illicit drugs, alcohol and tobacco, to provide quality information and to encourage informed public debate. The foundation produces regular newsletters and places its submissions on its website.

Public health services provide information and advice to organisations and the public on blood safety awareness and issues relating to injecting drug use.

**Drug and blood awareness education**

**In schools**

Drug education is identified as an integral component of the national curriculum statement *Health and Physical Education in the New Zealand Curriculum* (Ministry of Education 1999). Schools develop and implement drug education policies and programmes in response to the National Education Guidelines. Other agencies with an interest in drug education may assist individual schools with education programmes or with teacher training. The Ministry of Education has published guidelines for effective school-based drug education (Ministry of Education 2000).

Some schools currently implement multifaceted life-skills programmes that have pupil education, parent education, community organisation and health policy components.

Blood awareness education may also be provided as part of first aid education, and is reflected in school health policies and procedures.

**In sport**

Sports Medicine New Zealand (Inc) has developed a policy statement on infectious disease transmission in sport (Sports Medicine New Zealand 2001) which states that all relevant sporting organisations are obliged to provide adequate information on the prevention of the spread of infectious disease. The guidelines it provides promote best practice in sporting codes and are reviewed regularly in accordance with contemporary scientific opinion. These guidelines are particularly relevant to hepatitis C where the sport is more likely to result in injury and bleeding, such as cycling, boxing, wrestling, martial arts and team contact sports (rugby and rugby league). The guidelines were revised in 2001 and are comparable with policy statements developed by the American Medical Society for Sports Medicine and the International Federation of Sports Medicine.

**Education in primary health care settings**

Potentially important sources for information on hepatitis C prevention include general practitioners, youth health centres, sexual health centres, Māori health services and student health centres. Such services provide opportunities to raise awareness of blood safety in general, as well as providing specific information on local needle exchanges and support for injecting drug users. Such services also provide first-point-of-call testing, counselling, assessment and referral.
Youth health centres in some parts of the country provide information and education on disease prevention for young injecting drug users, including referral to other services.

4.1.3 Provision of safe injecting equipment through needle exchanges

**Needle and Syringe Exchange Programme**

NSEP aims to minimise the spread of blood-borne viruses among injecting drug users through the sale and distribution of new injection equipment and by providing the means to dispose safely of used needles and syringes. Needles and syringes are supplied through community-based needle and syringe exchanges, pharmacies and other outlets on a user-pays basis, with individual outlets setting their own prices.

The Needle Exchange New Zealand Trust (NENZ) acts as a forum for the exchange of information and the development of policies and programmes to guide operators involved in the NSEP. The Needle Exchange Services Trust (NEST) is involved in operational activities involving the collection and safe destruction of needles and syringes. The rate of return of used injection equipment is 53 percent of sales. This is a significant improvement over previous rates of return of 37 percent in 1990 and 1993.

NEST also produces and updates the *Needle Exchange Programme Retailer Manual* (NENZ 2000), a source of practical advice to help needle exchange service operators to operate successfully and safely. The manual covers guiding principles, safety (handling, storage, needle-stick injury, occupational safety and health), legal considerations, retailer obligations, approved equipment, buying and selling equipment, returns and national contacts. Outlets are approved by public health services and are identified by the international double arrow symbol.

**Community-based needle and syringe exchanges**

Community-based needle and syringe exchanges are operated in 13 centres around New Zealand by community groups, either full or part-time. As well as education, these exchanges provide:

- a variety of needles and syringes for sale, and collection of used needles and syringes
- sales of other paraphernalia for safer injecting (eg, filters, swabs, sterile water, butterfly needles).

The efficacy of these community-based exchanges is demonstrated by the fact that, while they make up only 7 percent of the total number of outlets, they account for 64 percent of sales.

**Pharmacies and other outlets**

There are approximately 180 additional outlets for needle and syringe exchange, consisting mainly of pharmacies, branches of the New Zealand Prostitutes Collective and some sexual
health centres. These outlets extend the availability of standard needles and syringes into rural and urban areas which do not have community-based exchanges.

Prisons

In New Zealand currently, hepatitis C harm reduction programmes in prisons are minimal. There is no consistent policy on the supply of bleach or access to sterile injecting equipment. Therefore the Department of Corrections is reviewing policy on harm reduction measures in prisons in liaison with the Ministry of Health.

The *Strategy to Reduce Drug and Alcohol Use in New Zealand Prisons 2001–2004* (Department of Corrections 2001b) outlines the prison protocol for methadone treatment. This allows inmates who are on remand, serving short sentences or who have particular medical conditions to continue this treatment while in prison. For other sentenced inmates, this treatment is withdrawn in accordance with managed withdrawal guidelines. These include the provision of additional medical and psychological support to treat withdrawal symptoms where necessary.

4.1.4 Accessible drug treatment programmes

Alcohol and drug services

Alcohol and drug services are funded by DHBs. Although some offer specific kaupapa Māori services, most provide mainstream services. Resource guidelines for alcohol and drug services are set out in the *Blueprint for Mental Health Services* (Mental Health Commission 1998), including one specific service component relating to methadone: 140 places for methadone treatment plus 10 places for youth per 100,000 population. The services provide assessment, counselling and drug treatment, including detoxification and methadone maintenance, and have residential and medical programmes with inpatient facilities.

Methadone treatment services for people who are dependent on opioids are run in accordance with the National Protocol for Methadone Treatment. Specialist services are provided, and supplemented by general practitioner services for those whose dependency condition has been stabilised. Treatment focuses on harm reduction and stabilisation of the client’s health status.

4.1.5 Screening and testing of human blood for transfusion

New Zealand Blood Service

The New Zealand Blood Service (NZBS) has primary responsibility for ensuring that safe blood and blood products are supplied in New Zealand. The strategies to ensure blood safety include:

- the use of a standardised National Blood Donor Screening Questionnaire
- centralisation of testing, for consistency
- provision of virally inactivated, fractionated plasma-derived products.
In November 2001 the NZBS completed implementation of nucleic acid amplification technology (NAT) testing – the latest testing technology and a new standard for screening fresh blood products for hepatitis C and HIV. NAT testing allows for the direct detection of the hepatitis C and HIV viruses, whereas the traditional tests detect antibodies that the body creates after contact with these viruses. NAT testing reduces the ‘window period’ (the time between exposure to a virus and when the infection can be detected) from approximately 82 days to 22 days for hepatitis C, and from 22 days to 11 days for HIV. Hence the safety of blood and blood products is further improved.

4.1.6 Application of standard precautions to minimise blood exposures in health care and other settings

Infection control guidelines

The Health and Disability Services (Safety) Act 2001 requires health and disability care institutions to undergo certification, including compliance with the New Zealand Infection Control Standard (Standards NZ 2000). The standard outlines the basic principles and systems that are the foundation for infection control, including appropriate policies and procedures.

Such institutions are responsible for ensuring that standard precautions are applied in order to ensure that blood-borne viruses and other pathogens are not transmitted through patient or staff contact.

Workplace safety

The principal objective of the Health and Safety in Employment Act 1992 is to prevent harm to employees at work, including the risk of acquiring infectious diseases such as hepatitis C. Avoiding exposure to the blood of others in the workplace is an important issue covered by the Act, which:

- promotes excellence in health and safety management
- requires people in specific places of work to perform specific duties to ensure that people are not harmed as a result of work activities
- provides for the making of regulations and approved codes of practice relating to specific hazards.

The Act also places duties on employers and others. It is supplemented by regulations, approved codes of practice and guidelines developed by, or in conjunction with, Occupational Safety and Health (OSH), which is the Government’s principal agent for implementing the Act.

Tattooing and piercing

The Ministry of Health’s Guidelines for the Safe Piercing of Skin (1998a) provide a framework of minimum standards for infection control in the body piercing and tattooing industries, with a particular focus on protection of staff and clients from blood-borne viruses.
The Ministry of Health’s leaflet *Body-piercing and Tattooing: Protecting your health* (1999) provides information for people contemplating these procedures on ways of minimising the chances of infection (eg, how to choose operators who comply with the guidelines).

Under the Health Act 1956, city and district councils are obliged to improve, promote and protect public health. The Act also requires them to inspect their districts regularly to ascertain if any nuisances, or any conditions, exist that are likely to be injurious or offensive to health. The council is then required to abate any nuisance. Some territorial local authorities have adopted bylaws to foster good piercing and tattooing practice and increase operators’ standards to minimise infection.

A Public Health Bill is currently under development, and will eventually replace the Health Act and other relevant legislation.

### 4.2 Secondary preventive strategies

#### 4.2.1 Identifying and testing people at risk

**Knowledge of hepatitis C among health care professionals**

The amount of teaching about hepatitis C at undergraduate level is reportedly variable.

Some opportunities for postgraduate training include:

- a module on blood-borne viruses as part of the National Opioid Treatment Training Programme run for GPs, practice nurses and pharmacists by the Goodfellow Unit at Auckland University
- occasional continuing medical education (CME) modules in local centres
- self-teaching CME modules available through the websites of CDC Atlanta and the Royal Australasian College of GPs
- small components on blood-borne viruses as part of distance learning courses on alcohol and drug disorders run by Auckland and Otago universities.

#### 4.2.2 Information provided to people with hepatitis C about ways to limit transmission to others and to prevent co-morbidity

**Information provided in health settings**

Health care professionals provide information through alcohol and drug services, primary health care and specialist services. However, the information provided, particularly in primary health care settings, is reported to vary considerably.

**Hepatitis C support and resource centres**

The services currently offered by the hepatitis C support and resource centres in Auckland and Christchurch are aimed primarily at providing education and support for people with hepatitis C.
The activities of the resource centres, which have a small workforce, include:

- telephone information and support services for people who are hepatitis C positive
- face-to-face information and support services within the Auckland and Christchurch areas for high-risk groups, other agencies and organisations in contact with high-risk groups and health professionals
- providing information via regular newsletters and other resources
- providing learning, support and networking opportunities to people affected with hepatitis C
- providing personal and public advocacy on behalf of people affected by hepatitis C
- contributing to the prevention of new hepatitis C infections through the development and distribution of appropriate educational material and programmes (eg, in prisons) and the promotion of public awareness.

4.3 Surveillance and research

4.3.1 Surveillance

Under the current system of surveillance for hepatitis C, only acute cases are notifiable. Acute hepatitis C was made notifiable in its own right in 1996, and in 1999 its case definition was changed to improve the sensitivity of surveillance. The current definition of an incident case is demonstration of documented seroconversion to hepatitis C when the most recent negative specimen was within the previous 12 months, or demonstration of an anti-hepatitis C positive test and a clinical illness consistent with acute hepatitis C within the previous 12 months where other causes of acute hepatitis can be excluded. As most new infections are asymptomatic, the sensitivity of the system remains low.

Periodic surveys of seroprevalence among injecting drug users and other groups have provided invaluable surveillance information to help inform policy and programme development.

4.3.2 Research

Recent public health research on hepatitis C in New Zealand has included:

- regional seroprevalence and risk factor studies in at-risk populations
- studies on the incidence of vertical transmission
- mathematical models to predict changes in disease incidence based on transmission rates and the population of injecting drug users
- mathematical models to determine disease cost based on predicted incidence estimates
- evaluation of infectious disease educational programmes piloted in selected prisons.
5 Future Policies and Programmes 2002–07

5.1 Introduction

Targeted programmes will focus on prevention among particular population groups at higher risk. These are listed below, with comments on the nature of the group to be targeted.

- Injecting drug users – the drug-using population is a diverse group whose members may come from culturally and linguistically diverse backgrounds and differ in age and socioeconomic status.
- Young people who may contemplate injecting drug use (or tattooing) at some point – young people need to hear the message that they are at risk and that hepatitis C is a serious problem.
- Prisoners, particularly young offenders – they are a vulnerable group who are harder to reach with preventive education unless they identify with the message.
- People who are hepatitis C positive – infected individuals can become re-infected and are a potential source of infection.

It is also necessary to increase awareness in the general community so that people who may contemplate injecting drugs in future are aware of the risks, and of the means of minimising them. Raised awareness will also help to minimise the stigma that may be associated with hepatitis C and the discrimination that people with the disease may experience.

This plan assumes that many of the programmes identified will be peer-driven and involve participation by members of the population groups directly concerned: injecting drug users and people who are hepatitis C positive.

Many of the programmes described are aimed at minimising the spread of other blood-borne viruses, and this synergy must be reflected and built upon in programme design.

The priority areas for action are:
- policies
- community awareness
- education and outreach for injecting drug users and people with hepatitis C
- treatment services
- surveillance
- research.
5.2 Policies

5.2.1 Illicit drug use

The National Drug Policy will continue to provide the strategic direction to reduce and prevent drug-related harm. Control over the supply of injectable drugs will form a major part of the international and New Zealand response to reduce drug-related harm.

Given the apparent increased availability of amphetamines, increasing action to reduce supply is essential. The Expert Advisory Committee on Drugs (EACD) has reviewed the classification of methamphetamine as a controlled drug and presented recommendations to the Minister of Health. At the time of writing this document, the Minister of Health was considering the recommendations.

Also, the New Zealand Drug Intelligence Bureau and the New Zealand Chemical Industry Council Inc have signed a Memorandum of Understanding aimed at restricting the movement of precursor chemicals and provide a tracking system to monitor sales.

It is not proposed to establish supervised injecting facilities in New Zealand, as this would require legislative change. The circumstances that have led to such facilities being set up overseas are not pressing in New Zealand. This is not considered a priority at present, therefore, but the issue will be reviewed if supply-side controls fail.

5.2.2 Policy anomalies

Undertake a review of the legislation containing anomalies in the management of hepatitis C.

<table>
<thead>
<tr>
<th>Milestone 5.2.2: Policy anomalies with hepatitis C</th>
<th>Date</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review the New Zealand Food Regulations 1984 so that people with hepatitis C are not prevented from working in the food industry</td>
<td>To be confirmed*</td>
<td>New Zealand Food Safety Authority</td>
</tr>
<tr>
<td>Review the Infectious and Notifiable Diseases Regulations 1966 so that people with hepatitis C are not prevented from working in the food industry</td>
<td>To be confirmed*</td>
<td>New Zealand Food Safety Authority</td>
</tr>
<tr>
<td>Review the Misuse of Drugs Act 1975 to decriminalise needle and syringe possession</td>
<td>To be confirmed*</td>
<td>Ministry of Health, Police, Customs.</td>
</tr>
</tbody>
</table>

* Owing to the parliamentary process for scheduling legislation, it was not possible to state a date for action at the time of writing this plan.
5.2.3 Prisons

Enhance prevention programmes and the management of the risks of transmission of hepatitis C and other blood-borne viruses in prisons, and ensure appropriate referral after discharge.

<table>
<thead>
<tr>
<th>Milestone 5.2.3:</th>
<th>Date</th>
<th>Responsibility</th>
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</thead>
<tbody>
<tr>
<td>Hepatitis C in prisons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Implement strategies to reduce the use of drugs in prisons as outlined in the Strategy to Reduce Drug and Alcohol Use in New Zealand Prisons 2001–2004</td>
<td>Ongoing</td>
<td>Department of Corrections</td>
</tr>
<tr>
<td>Review the methadone protocol prior to the revision of the Strategy to Reduce Drug and Alcohol Use in New Zealand Prisons 2001–2004</td>
<td>2002–2004</td>
<td>Department of Corrections</td>
</tr>
<tr>
<td>Review the harm minimisation and hepatitis C management strategies in prisons as part of the Department of Corrections project to enhance communicable disease control programmes in prisons</td>
<td>2002/03</td>
<td>Department of Corrections with support from the Ministry of Health</td>
</tr>
<tr>
<td>Pilot improved medical assessment and treatment programmes for communicable diseases, including hepatitis C, in a prison</td>
<td>2002/03</td>
<td>Department of Corrections with support from the Ministry of Health</td>
</tr>
<tr>
<td>Based on the results of the pilot, implement improved medical assessment and treatment programmes for communicable diseases, including hepatitis C, in other prisons</td>
<td></td>
<td>Department of Corrections and Prisons Service, in liaison with the Ministry of Health</td>
</tr>
</tbody>
</table>

5.2.4 Health care settings

Develop policies and programmes to prevent and manage transmission of blood-borne viruses in health and disability care settings.

<table>
<thead>
<tr>
<th>Milestone 5.2.4: Policies and programmes for hepatitis C</th>
<th>Date</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implement infection control policies and programmes in line with the New Zealand Infection Control Standard, which establishes procedures and practices in health settings to minimise the transmission of blood-borne viruses</td>
<td>2002 onwards</td>
<td>DHBs, all health and disability care institutions, and other health settings</td>
</tr>
<tr>
<td>Develop New Zealand guidelines for health care workers and other key occupational groups with positive sero-status (HIV, hepatitis B and C) in collaboration with Australia</td>
<td></td>
<td>Ministry of Health</td>
</tr>
<tr>
<td>Develop nationwide protocol on early treatment after exposure to hepatitis C</td>
<td></td>
<td>Ministry of Health</td>
</tr>
</tbody>
</table>

See also Milestone 3.11 on IAID (in Appendix 1) for action in health and disability care institutions.
5.3 Community awareness

It is difficult to identify young people who may be at risk through experimenting with injecting drugs or contemplating piercing or tattooing. It is therefore important to provide consistent information on blood safety awareness in a wide variety of settings frequented by young people, including schools, polytechnics, universities, workplaces, sports clubs and marae.

General blood safety awareness information and programmes need to be promoted in these settings, focusing on risks from tattooing, first aid, contact sports and injecting drug use. Such programmes should aim to increase awareness of ways of keeping safe and, by improving knowledge, reduce the stigma associated with hepatitis C and the discrimination sometimes experienced by people who are hepatitis C positive.

General community blood awareness programmes need to be designed carefully: more harm than good can result from programmes that may engender unreasonable fear about blood, or which do not take into account cultural issues concerning blood.

Specific raising of awareness needs to be done among the groups that are more likely to be contemplating injecting drugs, tattooing or piercing. The increase in amphetamine use in New Zealand means that injecting drug users come from more diverse backgrounds, and so outreach programmes may need to be strengthened. Basic information for injectors, people who are hepatitis C positive and those contemplating injecting drugs should include messages on:

- avoiding or ceasing injecting
- safer injecting behaviours (including not sharing paraphernalia)
- how to access supplies and information
- how to access clinical services for testing, treatment, counselling and advice
- safe disposal of used drug-injecting paraphernalia
- avoiding initiating others
- choosing safer tattooists or piercers.

A range of materials is currently produced for this purpose, but many have local production and distribution only. The Ministry of Health proposes to make standard information available nationally.

A communications plan will focus on raising community awareness of blood safety and on increasing knowledge of safer injecting practices, tattooing and piercing. It will identify:

- key messages
- target audiences and cost-effective ways of reaching such audiences, as resources become available
- suitable settings for, and ways of, disseminating information
• synergy with programmes and information that are already available for hepatitis C or which address related issues (eg, hepatitis B, sexual health, youth programmes, first aid)
• quality (eg, pre-testing of materials)
• evaluation and monitoring.

<table>
<thead>
<tr>
<th>Milestone 5.3: Hepatitis C and community awareness</th>
<th>Date</th>
<th>Responsibility</th>
</tr>
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<tbody>
<tr>
<td>As part of the national Health and Physical Education Curriculum, enhance blood awareness education on safer practices in situations involving exposure or potential exposure to blood</td>
<td>Ongoing</td>
<td>School Boards of Trustees and Ministry of Education</td>
</tr>
<tr>
<td>Increase the number of schools that have drug education programmes following the guidelines in Drug Education: A guide for principals and boards of trustees (Ministry of Education 2000), and which achieve drug education goals consistent with the national Health and Physical Education Curriculum</td>
<td>2002–2005</td>
<td>School Boards of Trustees and Ministry of Education</td>
</tr>
<tr>
<td>Develop and implement a community communications plan</td>
<td>Ministry of Health in collaboration with relevant stakeholders</td>
<td></td>
</tr>
<tr>
<td>Continue to implement the Health and Safety in Employment Act 1992 to minimise the risk of exposure to blood-borne viruses</td>
<td>Ongoing</td>
<td>Employers, employees, OSH</td>
</tr>
<tr>
<td>Continue to implement Sports Medicine NZ policy on infectious diseases</td>
<td>Ongoing</td>
<td>Sports organisations, especially those involving contact sports</td>
</tr>
<tr>
<td>Promote implementation of guidelines to help members of the skin-piercing industry protect their clients</td>
<td>Ministry of Health, Public Health Services, local authorities</td>
<td></td>
</tr>
</tbody>
</table>

5.4 Education and outreach for people who inject drugs and for people with hepatitis C

Appropriate training is important for people who work with youth at risk and with injecting drug users, including peer educators, youth workers, teachers and social workers. The training should cover blood awareness, as well as specific prevention issues associated with injecting, using the Hepatitis C Resource Manual (see 5.5.1). Given their past experience, hepatitis C support and resource centres and user-run exchanges are expected to participate in delivering this enhanced training.

The Ministry of Health also proposes to strengthen peer education initiatives run by hepatitis C support groups and community-based needle and syringe exchanges to increase outreach and peer guidance and support. The draft NSEP review has been taken into account in developing this plan.
5.4.1 Education
To support innovative approaches that enhance educational opportunities for reducing and preventing hepatitis C transmission.

<table>
<thead>
<tr>
<th>Milestone 5.4.1: Hepatitis C-related education and support</th>
<th>Date</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintain existing hepatitis C support groups, needle and syringe exchanges and other programmes that provide prevention education, and peer support activities</td>
<td>Ongoing</td>
<td>Ministry of Health, DHBs, hepatitis C resource centres, Needle Exchange NZ, needle and syringe exchanges, NZ Drug Foundation, other stakeholder groups</td>
</tr>
<tr>
<td>Enhance prevention programmes provided through hepatitis C resource centres in South Island for people who are hepatitis C positive by developing: • a modular training package for staff, volunteers and allied health professionals • systems to support ongoing local peer-group supervision in the South Island, including promoting a self-help model</td>
<td>2002/03</td>
<td>Hepatitis C Resource Centre, Te Waipounamu</td>
</tr>
<tr>
<td>Enhance existing prevention programmes in the North Island</td>
<td></td>
<td>Ministry of Health and DHBs in collaboration with relevant stakeholders</td>
</tr>
<tr>
<td>Support the establishment of new peer-driven hepatitis C support services in areas that are currently unserviced</td>
<td></td>
<td>Ministry of Health and DHBs in liaison with relevant stakeholders</td>
</tr>
</tbody>
</table>

5.4.2 Safe injecting behaviour
Promote safe injecting behaviour by providing education about and access to clean needles and other injecting equipment, NSEPs and safe disposal.

<table>
<thead>
<tr>
<th>Milestone 5.4.2: Needle and syringe exchange programme (NSEP)</th>
<th>Date</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continue support for NSEP</td>
<td>Ongoing</td>
<td>Ministry of Health</td>
</tr>
<tr>
<td>Complete the review of NSEP</td>
<td>October 2002</td>
<td>Ministry of Health</td>
</tr>
<tr>
<td>Develop and implement an NSEP workforce training package</td>
<td></td>
<td>Ministry of Health in collaboration with Needle Exchange NZ</td>
</tr>
<tr>
<td>Develop and implement training modules for pharmacy staff involved in exchange services</td>
<td></td>
<td>Ministry of Health in collaboration with Needle Exchange, NZ Needle Exchange Services Trust, Pharmaceutical Guild, Pharmaceutical Society</td>
</tr>
<tr>
<td>Work towards achieving greater NSEP outreach to a more diverse user population, including urban areas and rural towns that may be poorly serviced at present</td>
<td></td>
<td>Ministry of Health in collaboration with relevant stakeholders</td>
</tr>
<tr>
<td>Consider opening additional peer-based NSEP outlets in Auckland, to bring per-capita service coverage closer to the level elsewhere in New Zealand</td>
<td></td>
<td>Ministry of Health in collaboration with relevant stakeholders</td>
</tr>
</tbody>
</table>
### Milestone 5.4.2:
**Needle and syringe exchange programme (NSEP)**

<table>
<thead>
<tr>
<th>Date</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Work towards providing extended after-hours exchange services, including more use of electronic dispensers</strong></td>
</tr>
<tr>
<td></td>
<td><em>Ministry of Health in collaboration with relevant stakeholders</em></td>
</tr>
<tr>
<td></td>
<td><strong>Explore and develop other facilities for safe disposal of used needles and syringes (eg, public toilets, recycling centres) to increase return rate</strong></td>
</tr>
<tr>
<td></td>
<td><em>Ministry of Health in liaison with NENZ and local authorities</em></td>
</tr>
</tbody>
</table>

### 5.4.3 Discrimination

To promote the rights and enhance the ability of people affected by hepatitis C to participate in society, and remove barriers to exercising those rights (see also section 5.3).

<table>
<thead>
<tr>
<th>Date</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Raise the awareness of people with hepatitis C of their rights under the Code of Health and Disability Services Consumers’ Rights</strong></td>
</tr>
<tr>
<td></td>
<td><em>Alcohol and drug services, hepatitis C resource centres, Needle Exchange NZ, needle and syringe exchanges, NZ Drug Foundation, other stakeholder groups and health providers</em></td>
</tr>
</tbody>
</table>

### 5.5 Treatment services

Health practitioners have an important role to play in the prevention of hepatitis C transmission. The group currently at greatest risk of hepatitis C infection, injecting drug users, often have health care needs beyond hepatitis C. However, lifestyle and psychosocial factors, and their marginalisation from the wider community, may limit their desire to access treatment and support services, or prevent them from talking about their injecting drug use with those involved in their care, including GPs, specialists, community workers and volunteers, nurses, social workers, peer educators and youth workers. Improving the knowledge of hepatitis C and injecting drug use issues among these care providers will help increase early detection of hepatitis C, and ensure appropriate advice on prevention and support is provided.
5.5.1 Increasing knowledge of hepatitis C and injecting drug use issues among health professionals and community workers

<table>
<thead>
<tr>
<th>Milestone 5.5.1: Increasing knowledge of hepatitis C to assist health professionals and community workers</th>
<th>Date</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop a Hepatitis C Resource Manual for New Zealand as a primary source of information</td>
<td>2003</td>
<td>Ministry of Health</td>
</tr>
<tr>
<td>Develop a standard training module to assist allied health care professionals who provide services to people with hepatitis C and those at risk of infection</td>
<td>2002/03</td>
<td>Hepatitis C Resource Centre, Te Waipounamu</td>
</tr>
<tr>
<td>Increase opportunities to provide information about hepatitis C to GPs and other primary health care practitioners (eg, CME sessions)</td>
<td></td>
<td>Ministry of Waipounamu</td>
</tr>
<tr>
<td>Maintain National Community Training Programme for Opioid Substitution Treatment and Management of Substance Abuse for GPs, nurses, pharmacists and others</td>
<td></td>
<td>Goodfellow Unit, University of Auckland</td>
</tr>
</tbody>
</table>

5.5.2 Drug treatment services

Services in different parts of the country offer different levels of service. Every opportunity should be taken in such services to provide consistent prevention advice and services and include:

- the offer of testing for blood-borne viruses for all injecting drug users, with appropriate counselling
- access to methadone maintenance and detoxification programmes
- prevention advice for non-dependent users and users on waiting lists.

While the number of places on the methadone programme has steadily increased over the past 10 years, demand continues to outstrip supply and waiting lists exist in most areas. It is desirable to minimise or eliminate waiting lists.

<table>
<thead>
<tr>
<th>Milestone 5.5.2: Hepatitis C testing and patient/client services</th>
<th>Date</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve linkages between alcohol and drug services and other related services (eg, hepatitis C support, needle and syringe exchanges, specialists) so that service users can move easily from one service to another</td>
<td>Ongoing</td>
<td>Service providers</td>
</tr>
<tr>
<td>Finalise national methadone treatment protocols setting out service expectations for specialist methadone services, clients, prescribing doctors and dispensing pharmacists</td>
<td>November 2002</td>
<td>Ministry of Health finalises protocols and guidelines</td>
</tr>
<tr>
<td>Publication of reviewed Practice Guidelines for Opioid Substitution (and audit book).</td>
<td>December 2002</td>
<td>Providers to implement</td>
</tr>
<tr>
<td>Develop blood-borne virus testing and education policy for alcohol and drug services, including staff training</td>
<td>December 2002</td>
<td>Ministry of Health</td>
</tr>
<tr>
<td>Establish a Drug Helpline to offer advice and information and brief counselling</td>
<td>December 2002</td>
<td>Alcohol and Drug Association of New Zealand</td>
</tr>
</tbody>
</table>
5.5.3 Treatments for hepatitis C

Development of phase 2 of the plan, reviewing the management of the disease with a particular focus on the cost-effectiveness of treatments, is a future project.

<table>
<thead>
<tr>
<th>Milestone 5.5.3: Treatments for hepatitis C</th>
<th>Date</th>
<th>Responsibility</th>
</tr>
</thead>
</table>
| Develop a hepatitis C treatment plan in consultation with stakeholders. This will include:  
- the availability of drugs for treatment  
- the accessibility of specialist services | 2003/04  | Ministry of Health                                   |
| Promote immunisation against hepatitis A and B for people with hepatitis C and injecting drug users who are not immune | Ongoing  | Primary health care practitioners, alcohol and drug services, hepatitis C support groups |

Consider the provision of free immunisation against hepatitis A and B for injecting drug users and people with hepatitis C

Ministry of Health

Consider the Ministry of Health’s recommendation that ribavirin should be funded for the treatment of hepatitis C infection as soon as possible

Ministry of Health

2002/03 PHARMAC

5.6 Surveillance and Research

Surveillance and research are important in providing an evidence base for the development of public policy and programmes for the evolving needs of people affected by hepatitis C.

5.6.1 Surveillance

The provision of adequate surveillance and monitoring mechanisms for identifying population groups at risk, guiding prevention interventions and evaluating success.

<table>
<thead>
<tr>
<th>Milestone 5.6.1: Surveillance</th>
<th>Date</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revise current acute case definition of hepatitis C in line with the recommendations of the Communicable Diseases Network of Australia</td>
<td>2003</td>
<td>Ministry of Health and Institute of Environmental Science and Research</td>
</tr>
<tr>
<td>Develop systems for ongoing monitoring of the incidence and prevalence of hepatitis C using data from serially tested populations at low risk (eg, blood donors, sexual health clinic attendees, NZ Defence Force entrants, pregnant women) and at higher risk (eg, prison entrants, needle and syringe exchange clients, methadone clinic attendees)</td>
<td>Ministry of Health in liaison with other relevant parties</td>
<td></td>
</tr>
<tr>
<td>Support proposed Public Health Bill which will enable laboratory notification of hepatitis C</td>
<td>Ministry of Health, other interested stakeholders</td>
<td></td>
</tr>
<tr>
<td>Carry out a seroprevalence survey (for hepatitis C and HIV) among NSEP clients</td>
<td>2002/03</td>
<td>Ministry of Health</td>
</tr>
</tbody>
</table>

34 Action on Hepatitis C Prevention
5.6.2 Research

Research focused on both national and local issues has a role in guiding prevention of hepatitis C.

<table>
<thead>
<tr>
<th>Milestone 5.6.2: Research</th>
<th>Date</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluate drug education programmes offered and, based on the findings, determine the best way to deliver drug education messages to young people, families and communities to reduce the risks associated with drug use</td>
<td>2002/05</td>
<td>Ministry of Youth Affairs</td>
</tr>
<tr>
<td>Evaluate knowledge of and adherence to the Ministry of Health’s Guidelines for the Safe Piercing of Skin</td>
<td></td>
<td>Ministry of Health</td>
</tr>
<tr>
<td>Evaluate impact of harm minimisation measures within prisons</td>
<td></td>
<td>Department of Corrections with support from Ministry of Health</td>
</tr>
</tbody>
</table>
Appendix 1: Extracts from *Integrated Approach to Infectious Disease: Priorities for Action 2002–2006 (IAID)*

**Strategies: Transfusion safety**

3.1 Maintain a consistent approach to donor assessment, selection, education and testing.

<table>
<thead>
<tr>
<th><strong>Milestone 3.1:</strong> Maintain consistent donor selection</th>
<th><strong>Date</strong></th>
<th><strong>Responsibility</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Continue to use the National Donor Screening Questionnaire in donor assessment and selection</td>
<td>Ongoing</td>
<td>NZBS</td>
</tr>
<tr>
<td>Centralise testing of donations to achieve consistency of testing protocols</td>
<td>Ongoing</td>
<td>NZBS</td>
</tr>
<tr>
<td>Use regular newsletters and communications to raise awareness and educate blood donors and the public</td>
<td>Ongoing</td>
<td>NZBS</td>
</tr>
</tbody>
</table>

3.2 Maintain and enhance surveillance of transfusion-associated infections in order to correct their cause and prevent recurrence.

<table>
<thead>
<tr>
<th><strong>Milestone 3.2:</strong> Enhance surveillance of transfusion-related infections</th>
<th><strong>Date</strong></th>
<th><strong>Responsibility</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Standardise the reporting system for monitoring adverse reactions to blood and blood products</td>
<td>Under development</td>
<td>NZBS</td>
</tr>
<tr>
<td>Develop and implement a hospital-based ‘haemovigilance’ system to monitor and follow up adverse reactions</td>
<td>Under consideration</td>
<td>NZBS</td>
</tr>
</tbody>
</table>

3.3 Maintain mechanisms for consideration of new technologies and their roles in maintaining transfusion/transplantation safety, including cost–benefit analysis.

<table>
<thead>
<tr>
<th><strong>Milestone 3.3:</strong> Assess and evaluate new technologies</th>
<th><strong>Date</strong></th>
<th><strong>Responsibility</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Continue NZBS–Ministry of Health consultation on issues having or likely to have substantial impact on the blood donor system</td>
<td>Ongoing under current policy</td>
<td>NZBS, Ministry of Health</td>
</tr>
</tbody>
</table>

3.4 Ensure the capacity for identifying and responding to new threats.

<table>
<thead>
<tr>
<th><strong>Milestone 3.4:</strong> Respond to new threats</th>
<th><strong>Date</strong></th>
<th><strong>Responsibility</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Use specialist advisory groups and existing risk management groups with the role of defining, assessing and prioritising risks</td>
<td>Ongoing</td>
<td>NZBS</td>
</tr>
<tr>
<td>Maintain international links and networks</td>
<td>Ongoing</td>
<td>NZBS, Ministry of Health</td>
</tr>
</tbody>
</table>
**Strategies: Occupational settings**

3.11 Develop policies and programmes to prevent and manage transmission of blood-borne viruses in occupational settings.

| Milestone 3.11: Develop and implement policies to reduce transmission of blood-borne viruses | Date | Responsibility |
| --- |
| Implement infection control policies and programmes, in line with the New Zealand Infection Control Standard, which establish procedures and practices in health care and other occupational settings to minimise the potential for transmission of blood-borne viruses (including guidelines for cleaners, and management of injuries in the workplace) | 2002 onwards | DHBs, hospitals, all health and disability institutions, other occupational settings |
| Produce and disseminate protocols for health care workers and other key occupational groups with positive sero-status (HIV, hepatitis C or B), in collaboration with Australia | 2002/03 | Ministry of Health |
| Ensure the use of post-exposure prophylaxis protocols (if appropriate) for needle-stick injury (in occupational and non-occupational settings) | Ongoing | DHBs, hospitals, health and disability institutions |
Appendix 2: Consumer Survey and Returns Audit, February 2000

The Consumer Survey and Returns Audit 2000 (Needle Exchange New Zealand Trust 2000b) represents findings of two studies.

1. A survey of people attending dedicated needle exchanges in New Zealand during the month of February 2000. The objectives of the study were to:
   - characterise the people who use needle exchange services
   - gain an understanding of the types of drugs currently being injected
   - examine the levels of risk behaviours for blood borne virus transmission such as the re-use of injection equipment and the sharing of injection equipment currently prevalent amongst the group
   - explore why people attending needle exchanges only return a proportion of the injection equipment which they purchase
   - gauge the level of satisfaction of needle exchange clients with current services
   - identify ways in which the service could be improved to more fully meet the needs of consumers.

2. An audit of used sharps returned during February 2000 through all outlets in the Needle Exchange programme. The objectives of the study were to:
   - gauge the level of used injection equipment being returned, specifically as a proportion of the volume being distributed
   - analyse the types of injection equipment being returned in relation to the types being distributed through the Needle Exchange programme;
   - gain some understanding of the level and quantity of non-needle exchange waste being returned through the disposal system.

A breakdown of the figures for injecting drug users taken from user-based outlets showed that:
   - 69 percent were male
   - 81 percent identified as being of European origin, 11 percent identified as Māori and 2 percent identified as being of Pacific ethnicity
   - 74–77 percent inject opiates
   - 21–24 percent inject stimulant drugs, primarily:
     - amphetamine sulphate or methamphetamine
     - ritalin.

Seventy-eight percent of respondents stated that they had not shared injection equipment in the month preceding the survey. Correspondingly, 22 percent of respondents had shared injection equipment in the preceding month.
Of the people who reported sharing in the previous month, 82 percent had shared with their regular sexual partner or a close friend. Only 4 percent of the sample reported sharing with more than one person, and only 2 percent of the sample reported casual sharing behaviours during this period.

Understanding of the sharing of injection equipment and other risk behaviours was reasonable. However, understanding of the risks of sharing drug preparation equipment and other paraphernalia was poor.

It was not possible to estimate the number of people accessing the programme during the survey period.

Eighty-eight percent of respondents were purchasing injection equipment for three or fewer people.

Just over half, 51.3 percent, of respondents claimed to return all their used injection equipment. This correlates well with the overall rate of return of used injection equipment for the NSEP, which was 52.9 percent.

Most respondents who did not return all their used injection equipment reported either burning it, crushing it in a can or enclosing it in a jar, and putting it into domestic rubbish.

When asked why they did not return all used equipment, respondents gave the following reasons:

- inconvenience (42%)
- less police risk (36%)
- not enough incentive (22%).

The rate of return of used injection equipment as a proportion of the volume distributed is a key indicator of the NSEP’s success. The national rate of return has been calculated three times since the programme was introduced. In both of the two previous studies, in 1990 and 1993, the rate of return was calculated at around 37 percent of sales. In this study, the rate was 52.9 percent of sales nationally, across all outlets. This shows a considerable increase in the proportion of equipment being returned.
## Glossary

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute hepatitis C</td>
<td>Newly acquired hepatitis C virus infection</td>
</tr>
<tr>
<td>Chronic hepatitis C</td>
<td>Liver inflammation in patients with chronic hepatitis C infection and characterised by abnormal levels of liver enzymes</td>
</tr>
<tr>
<td>Consultation</td>
<td>The process of seeking the views of individuals or groups, including both providers and health service users</td>
</tr>
<tr>
<td>Drug</td>
<td>Substance used for psychoactive effects, recreation or enhancement as well as a prescription- or pharmacy-only drug used outside medical or pharmaceutical advice</td>
</tr>
<tr>
<td>Epidemiology</td>
<td>The scientific study of the distribution of disease</td>
</tr>
<tr>
<td>Equity</td>
<td>Fairness</td>
</tr>
<tr>
<td>Goal</td>
<td>A high-level strategic statement</td>
</tr>
<tr>
<td>Harm</td>
<td>Includes all adverse effects or outcomes, including harm to health, as well as detrimental effects on social and family relationships, loss of actual or potential employment or livelihood, and economic or financial costs</td>
</tr>
<tr>
<td>Health education</td>
<td>Providing information and teaching people how to behave safely and in a manner that promotes and maintains their health</td>
</tr>
<tr>
<td>Incidence</td>
<td>The number of instances of illness commencing, or of persons falling ill, during a given period in a specified population. More generally, the number of new events within a specified period of time.</td>
</tr>
<tr>
<td>Infectious disease (communicable disease)</td>
<td>An illness due to a specific infectious agent or its toxic products that arises through transmission of that agent or its products from an infected person, animal or reservoir to a susceptible host</td>
</tr>
<tr>
<td>Intervention</td>
<td>A programme or series of programmes</td>
</tr>
<tr>
<td>Mode of transmission</td>
<td>The mechanisms by which an infectious agent is spread to humans, both direct and indirect</td>
</tr>
<tr>
<td>Morbidity</td>
<td>Illness, sickness</td>
</tr>
<tr>
<td>Mortality</td>
<td>Death</td>
</tr>
<tr>
<td>Prevalence</td>
<td>The number of instances of a disease or another condition in a population at a given time</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>-------------------------------</td>
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</tr>
<tr>
<td>Pacific peoples</td>
<td>People of Pacific Islands ethnic origin (e.g., Tongan, Niuean, Fijian, Samoan, Cook Islands Māori, Tokelauan), incorporating people of Pacific Islands ethnic origin born in New Zealand as well as those born overseas</td>
</tr>
<tr>
<td>Programme</td>
<td>A group of activities directed at achieving defined objectives and targets</td>
</tr>
<tr>
<td>Programme evaluation</td>
<td>The assessment of policies, materials, personnel, performance, quality of practice or services and other inputs and implementation experiences</td>
</tr>
<tr>
<td>Public health</td>
<td>The science and art of promoting health, preventing disease and prolonging life through the organised efforts of society</td>
</tr>
<tr>
<td>Rate (in epidemiology)</td>
<td>The frequency with which a health event occurs in a defined population. The components of the rate are: the number of events (numerator); the population at risk (denominator); and the specified time in which the events occurred. All rates are ratios, calculated by dividing the numerator by the denominator</td>
</tr>
<tr>
<td>Risk behaviour</td>
<td>Specific forms of behaviour that are proven to be associated with increased susceptibility to a specific injury, disease or form of ill health</td>
</tr>
<tr>
<td>Risk factor</td>
<td>An aspect of personal behaviour or lifestyle, an environmental exposure, or an inborn or inherited characteristic that is associated with an increased risk of developing a disease</td>
</tr>
<tr>
<td>Surveillance</td>
<td>The continuing scrutiny of all aspects of the occurrence and spread of a disease that are pertinent to effective control. Public health surveillance is the ongoing and systematic collection, analysis and interpretation of health data in the process of monitoring a health event</td>
</tr>
<tr>
<td>Strategy</td>
<td>A course of action to achieve targets</td>
</tr>
<tr>
<td>Treaty of Waitangi</td>
<td>New Zealand’s founding document. It establishes the relationship between the Crown and Māori as tāngata whenua (first peoples) and requires both the Crown and Māori to act reasonably towards each other and with utmost good faith</td>
</tr>
<tr>
<td>Treaty relationship</td>
<td>The relationship of good faith, mutual respect, understanding and shared decision-making between the Crown and Māori</td>
</tr>
</tbody>
</table>


