

**SIX-MONTH PROCESS EVALUATION REPORT
ON THE MEDICALLY SUPERVISED
INJECTING CENTRE (MSIC)**

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EXECUTIVE SUMMARY

- During the first six months of operation, 1503 individuals were assessed and registered to use the services at the Medically Supervised Injecting Centre.
- Registered clients made 11,237 visits to the MSIC during which their injection of drugs was supervised.
- The majority of clients were male (68%), and approximately one-third was female (31%). Male clients accounted for majority of visits (57%).
- Cocaine was the drug most frequently used at the MSIC (injected on 47% of the visits) followed closely by heroin (injected on 45% of the visits).
- The clients made an average of eight visits in the six months (range = 1 to 335). The average time spent in the MSIC per visit was approximately 30 minutes.
- On approximately one in every three visits, a health care service was provided to the clients (in addition to the supervision of their injecting), and one in 18 visits resulted in a referral for further assistance. Half of the occasions of service were injecting and vein-care advice (49%). Among the 610 referrals for further assistance, 42% were to treatment for drug dependence, 33% were to primary health-care and 25% were to social welfare services.
- Eighty-seven drug-related clinical incidents occurred at the MSIC requiring medical management (0.8% of visits). These were 50 heroin overdoses, which were managed by the administration of oxygen (naloxone was administered in eight cases), 28 cases of cocaine-related toxicity, and five benzodiazepine and four non-heroin opioid overdoses respectively.
- Eighty-eight individuals who sought use of the MSIC were not registered. Twenty-six of these individuals did not meet the registration criteria, and 62 individuals expressed the wish to use the MSIC but did not proceed to register at that time.

1. **BACKGROUND**

The Medically Supervised Injecting Centre (MSIC) opened for clients in Kings Cross, Sydney on 6 May 2001. The MSIC, an initiative of the NSW Drug Summit, is licensed to operate for an 18-month trial period and is the subject of a comprehensive independent evaluation (Parliament of New South Wales, 1999).

The MSIC Evaluation model comprises three components of program evaluation: a *process* evaluation, an *impact* evaluation, and an *economic* evaluation. Reports will be released quarterly on the process evaluation, while the impact and economic evaluations will not be reported on until the conclusion of the trial (MSIC Evaluation Committee, 2001)

This report describes the results of the process evaluation for the first six months of MSIC operation. Included are data relating to days and hours of operation; patterns of client attendance; client use of MSIC services; referrals to drug treatment, primary healthcare and social welfare assistance; injecting equipment supplied; clinical incidents; and enquires. A previous report provided an overview of the process evaluation at one month (Mattick et al., 2001).

The data reported herein refer to calendar months from May to October 2001. As the MSIC opened for clients on 6th May 2001, the month of May is based on 25 days of operational activity. All data that was disseminated prior to this six-month report was based on the reporting of months commencing from 6th May 2001. All subsequent reports will be based on calendar months.

2. METHODS

2.1 Subjects

This report is based on the activity of the 1503 clients who were registered at the MSIC by 31 October 2001. The eligibility criteria for client registration were: a history of injecting drug use, aged 18 years or older, not pregnant, not accompanied by a minor, and acceptance of the MSIC Client Code of Conduct. Informed consent to participate in evaluation research was also obtained.

2.2 Design

Prospective cohort.

2.3 Measures

All clients were allocated a unique identifier to track individual client activity at the MSIC.

A client registration questionnaire was developed based on the National Needle and Syringe Program Survey (MacDonald et al., 1997). Information was collected relating to demographics, injecting related health and blood borne virus risk behaviour, drug use, and drug treatment and overdose history.

At each visit to the MSIC the following information was also collected from clients and entered into a relational database (Microsoft® Access 97) by MSIC staff as the visit occurred: last drug injected and time since last injection, alcohol, benzodiazepine and methadone use that day, and drug/s to be injected during the current visit. In addition, any service provision, referrals, needle and syringes dispensed, and clinical incidents that occurred during a visit were recorded in the database.

The number and type of enquires at the MSIC reception and the number and reason for refusal of registration were also recorded.

2.4 Statistical Analysis

A relational database management system was developed by the Evaluation database consultants (S.Gilmour & R. Costa). Routine data cleaning and validity checks were undertaken by an independent NDARC researcher (J.Kimber). A set of standardised queries was used to retrieve data and generate aggregate reports. Data are presented descriptively.

3. RESULTS

3.1 Days and hours of operation

The MSIC was licensed to operate from 1st May, 2001, and it opened for client services on 6th May 2001. By 2nd July, the MSIC was open for eight hours per day, seven days per week providing services in one afternoon session (12.00 noon until 4.00pm) and one evening session (6.00pm until 9.30pm, with the last clients out of the building by 10.00pm). Since 6th May, 2001, the MSIC has been open daily, except for 8th August 2001 when the Centre was closed for staff training.

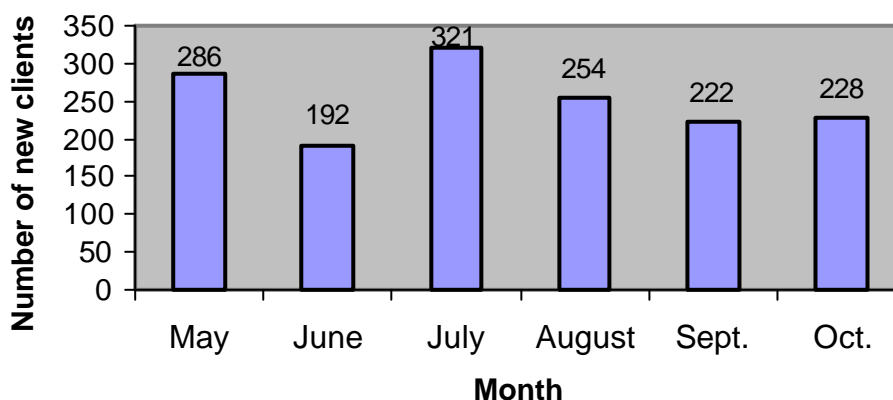
3.2 Patterns of client attendance

3.2.1 Number of clients and injections

During the first six months of operation, a total of 1503 clients were registered at the MSIC. The highest number of new registrations occurred in the month of July (n = 321, Figure 1), but new registrations continued at a high rate into October without any sign of declining.

Twenty-six individuals who sought to register to use the MSIC were refused registration¹. Fifteen individuals were aged less than 18 years, four individuals were accompanied by minors, two appeared to be intoxicated, two were pregnant or thought to possibly be pregnant, and one person was refused entry for each of the following reasons: not previously being an injecting drug user, wishing to smoke heroin, and being unable to self-administer injected drugs. Sixty-two individuals expressed the wish to use the MSIC, but did not proceed to register, as they were unable to wait or did not wish to undertake the registration interview at that time.

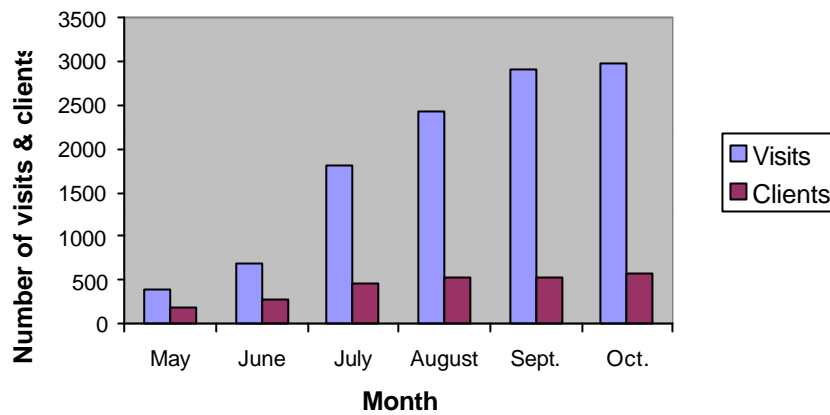
Figure 1: Number of new clients registered per month



There were a total of 11,237 visits for injection at the MSIC during the first six months, increasing from 401 in May to 2988 in October (Figure 2). The number of individual clients attending each month also increased from 187 in May to 588 in October. During the first six months, there were also 71 attendances by registered clients who expressed the wish to use the MSIC but left the premises before injecting (0.6% of visits).

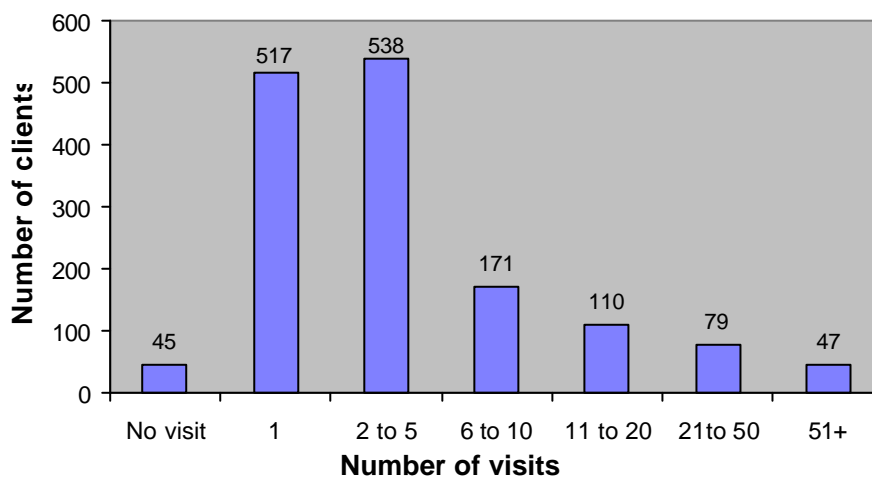
¹ These individuals were counselled and where appropriate referred to relevant services.

Figure 2: Number of visits to the MSIC and the number of clients



In the first six months, clients attended on average eight times (range 1-335), with a median of two visits per client. The average number of visits per client per month increased from 2.1 (range 1-15) in May to 5.1 (range 1-91) in October. A small proportion (3%) of clients have visited the MSIC over 50 times, 34% of clients attended once, and 3% of registered clients have not yet injected at the MSIC (Figure 3).

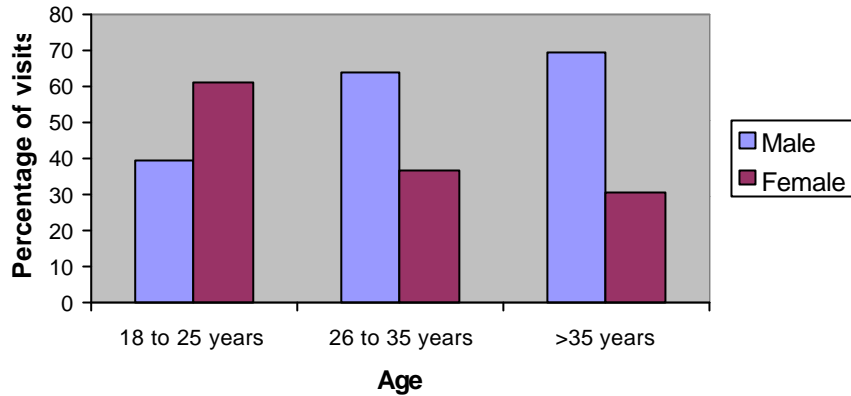
Figure 3: Frequency of client visits to the MSIC during the first six months



3.2.2 Age and gender of clients

Sixty-eight percent of MSIC clients registered during the first six months were male, 31% female, and 0.9% transgender. Female clients accounted for approximately 61% of visits in the 18-25 year age bracket. This is compared with 36% and 30% in the 26-35 and over 35 years age brackets respectively (Figure 4).

Figure 4: Proportion of visits to the MSIC by client age and gender

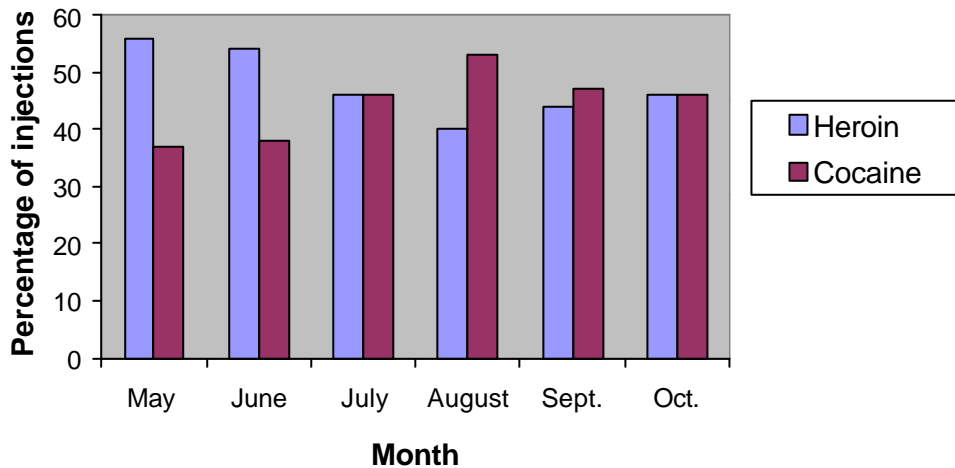


3.2.3 Drugs injected

The most commonly injected drugs at the MSIC during the first six months were cocaine (47%) and heroin (45%, Figure 5). The remaining eight percent of injections were heroin/cocaine combinations (1.8%), amphetamine (2.8%), benzodiazepines (1.7%) methadone (0.2%) and other drugs (0.9%).

There was monthly variation in the relative proportion of cocaine and heroin injected at the MSIC (Figure 5); more heroin was injected in May (56% of injections) and June (54% of injections) and more was cocaine injected in August (53%) and September (47%).

Figure 5: Proportion of visits to inject cocaine and heroin by month



3.2.4 Duration of MSIC visits

The average duration of visits for clients admitted to use the MSIC in the first six months was approximately 30 minutes. Clients spent an average of less than two minutes in Reception, 14 minutes in the Injecting Room, and 14 minutes in the After Care Area.

3.3 Client use of other MSIC services

In addition to the supervision of injection, MSIC staff provided 4,042 other occasions of service to clients (Table 1). Injecting and vein-care advice accounted for the majority of service provision (49%). Other services included psycho-social assistance (29%) and medical care (11%).

Table 1: Number and types of occasion of service

Service type	N	%
MSIC basic services		
Injecting and vein care advice	1995	49
Sexual health advice	91	2
Well woman advice ¹	101	3
Other health education	49	1
Advice on drug treatment	108	3
Drug and alcohol information	85	2
<i>Subtotal MSIC core</i>	<i>2429</i>	<i>60</i>
General medical services		
Asthma/chest infection	10	0.2
Wound dressing/tissue trauma	111	3
Skin disorder ²	63	2
Other medical	248	6
<i>Subtotal General medical</i>	<i>432</i>	<i>11</i>
Psycho-social services		
Accommodation	119	3
Legal issues	112	3
Finances	16	0.4
Crisis counselling	69	2
Other counselling	842	21
Other	23	0.6
<i>Subtotal Psycho-social</i>	<i>1181</i>	<i>29</i>
Total services provided	4,042	100

Notes: ¹ 'Well woman advice' includes contraception and reproductive health advice; ² 'Skin disorder' includes abscesses, rash and other topical infections.

3.4 Referrals to drug treatment, health care and social welfare services

Six hundred and ten referrals were provided to the 1503 MSIC clients in the first six months of operation (Table 2). The most frequent referrals were for drug treatment (42%), in particular methadone and buprenorphine maintenance (both 11%). The most common health care referral during the first six months was for medical consultations (19%). The most frequent social welfare referral was to services providing social welfare assistance (18%).

Table 2: Number and type of referrals

Referral type	N	%
Drug treatment		
Methadone maintenance	65	11
Buprenorphine treatment	64	11
Detoxification program	52	9
Drug and alcohol counselling	51	8
Naltrexone maintenance	3	0.5
Residential rehabilitation	16	3
Narcotics Anonymous/Self-help	7	1
<i>Sub-total for drug treatment</i>	<i>258</i>	<i>42</i>
Health care		
Medical consultation ¹	116	19
BBV/STD testing	20	3
Health education	66	11
<i>Sub-total for health care</i>	<i>202</i>	<i>33</i>
Social welfare		
Other counselling	27	4
Social welfare assistance	109	18
Legal/advocacy	14	2
<i>Subtotal for social welfare</i>	<i>150</i>	<i>25</i>
Total	610	100

Notes:¹ The referral type 'medical consultation' also includes dental health referrals.

3.5 Clinical incidents

In the six months there were 87 drug-overdose related clinical incidents. The majority were heroin-related overdoses (n=50, 57%), eight of which were managed using naloxone. There were also 28 cases of cocaine-related toxicity² (32%), four other opioid overdoses (5%), and five benzodiazepine overdoses (6%). All of these incidents were managed on-site. However, two of the benzodiazepine overdose clients were transported to hospital for further observation.

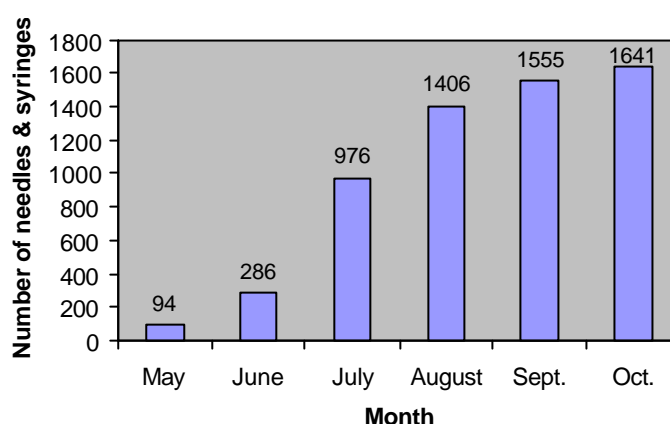
² Cocaine toxicity is characterised by heart palpitations, vomiting, agitation, aural sensitivity, an inability to cope with environment, and in some instances psychosis.

In addition there were four other incidents: two occasions of verbal abuse towards staff and/or other clients, one case of transportation to hospital for routine peritoneal dialysis, and one case of migraine.

3.6 Needle & syringe program (NSP)

In addition to the sterile injecting equipment provided during supervised injection at the MSIC, a total of 5958 needles and syringes were dispensed in the first six months to clients to take from the premises. The number of needles dispensed increased substantially from 94 in May to 1641 in October.

Figure 6: Injecting equipment supplied to clients by month



3.7 Enquiries at reception

There were 456 additional enquiries from people who attended the MSIC reception (Table 3). The most common enquiry was requests for NSP (33%) followed by requests for information about the MSIC (20%).

Table 3: Number and type of enquires

Nature of enquiry	N	%
Seeking NSP	148	33
Seeking information about the MSIC	90	20
Wishing to tour MSIC	55	12
Seeking/waiting for MSIC clients	43	9
Seeking referrals	34	8
Compliment to staff regarding MSIC	18	4
Other	68	15
Total	456	100%

4. COMMENTS

The MSIC operated during its first six months without any major incident that was not foreseen by its operating procedures. The number of client registrations and increasing number of visits to MSIC point to the acceptability of service to the client group.

The characteristics of the clients of the MSIC are consistent with the known profile of injecting drug users, with the majority male, and most aged 18 to 35 years of age (Topp et al., 2001). Notably, however, young female clients (18-25 years) accounted for a higher proportion of visits to the MSIC than young males. This may be due to the location of the MSIC in a sex work precinct.

Cocaine was injected as frequently as heroin at the MSIC. This may be related to an ongoing reduction in the supply of heroin or 'heroin drought' (Rouen et al., 2001; Weatherburn, Jones, Freeman, & Makkai, 2001) as well as the existence of an established cocaine drug market in the Kings Cross area (Darke, Kaye, & Topp, In press).

All opioid overdoses were managed with no adverse sequelae. The opportunity to provide immediate intervention allowed the majority of these overdoses to be managed with oxygen alone. This is consistent with the experience in European supervised injecting centres, where naloxone is rarely used in the management of opioid overdose (Kimber, Dolan, & Wodak, 2001).

5. REFERENCES

- Darke, S., Kaye, S., & Topp, L. (In press). Cocaine use in New South Wales, Australia, 1996-2000: 5 year monitoring of trends in price, purity, availability and use from the Illicit Drug Reporting System (IDRS). *Drug and Alcohol Dependence*.
- Kimber, J., Dolan, K., & Wodak, A. (2001). *International Survey of Supervised Injecting Centres (1999-2000)* (Technical Report 126). Sydney: National Drug and Alcohol Research Centre, University of New South Wales.
- MacDonald, M., Wodak, A., Ali, R., Crofts, N., Cunnigham, P., Dolan, K., Kelaher, M., Loxley, W., van Beek, I., & Kaldor, J. (1997). HIV prevalence and risk behaviour in needle exchange attenders: a national study. *Medical Journal of Australia*, 166, 237-240.
- Mattick, R., Kimber, J., Kaldor, J., MacDonald, M., Weatherburn, D., & Lapsley, H. (2001). *One-month process report of the evaluation of the Sydney Medically Supervised Injecting Centre (MSIC)*. Sydney: University of New South Wales.
- MSIC Evaluation Committee. (2001). *Evaluation Protocol for the trial a Medically Supervised Injecting Centre in Kings Cross*. Sydney: National Drug and Alcohol Research Centre, University of New South Wales.
- Parliament of New South Wales. (1999). Drug Summit Legislative Response Act. Sydney: Parliament of New South Wales.
- Rouen, D., Dolan, K., Day, C., Topp, L., Darke, S., & Hall, W. (2001). *Changes in heroin availability in Sydney, Australia in early 2001*. (Technical Report No. 119). Sydney: National Drug and Alcohol Research Centre, University of NSW.
- Topp, I., Darke, S., Bruno, R., Fry, C., Hargreaves, K., Humeniuk, R., McAllister, R., O'Reilly, B., & Williams, P. (2001). *Australian Drug Trends 2000: Findings of the Illicit Drug Reporting System (IDRS)* (Monograph No. 47). Sydney: National Drug and Alcohol Research Centre, University of NSW.
- Weatherburn, D., Jones, C., Freeman, K., & Makkai, T. (2001). The Australian heroin drought and its implications for drug policy. *Crime and Justice Bulletin*, 59(October), 1-15.