

Sales of needles and syringes in Western Australia

The SS5 pack project 1987 - 1990

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ABSTRACT

The study found that from June 1987 to December 1990 the SS5 Pack program resulted in the distribution of 534,940 new needles and syringes (N&S) through retail chemists to injecting drug users (IDUs) in Western Australia. It was found that over the three and one half year span of the program the highest rate of distribution of N&S occurred in lower SES areas of the Perth metropolitan area, and that very few SS5 Packs were distributed outside the metropolitan region.

The study supports the proposition that educational information and HIV preventive materials can be included with N&S sold by pharmacies and that retail outlets provide an effective method to support community-based campaigns aimed at reducing the risks of the transmission of AIDS and HIV disease through needle sharing and other high risk practices.

It is suggested that data from the sales of SS5 Packs through retail pharmacies and needle and syringe exchange programs should be routinely collected and analysed as the distribution of N&S is likely to be an indicator of localities and patterns of injecting drug use in metropolitan and country areas.

INTRODUCTION

Measuring injecting drug use is difficult because of limitations of the indicators available to infer prevalence. Indicators such as rates of notification of drug addiction by GPs, mortality data, rates of Hepatitis B and HIV infection, rates of admission to hospital for drug related conditions, criminal convictions and participation in treatment programs are approximations of drug use.^{1,2}

However these indicators are imperfect measures as they involve selective populations of injecting drug users (IDUs), provide information about sequelae of injecting drug use rather than measure prevalence and involve populations of dependent rather than experimental or recreational IDUs.

If new needles and syringes (N&S) were accessible to IDUs without restriction, sales and consumption data would be an indicator of rates of injecting drug use and pinpoint demographic factors that may be associated with injecting drug use. Accurate measurement of the number of new N&S consumed by IDUs would be an indicator of the prevalence of injecting drug use, show changes in demand over time and identify localities where injecting drug use was more prevalent.

Until recently N&S sales data have not been a reliable indicator as their supply has been severely curtailed in the belief that restrictions on access would discourage injecting drug use. This policy was widely supported in spite of empirical data that showed that IDUs have high rates of the markers of Hepatitis B infection through the re-use of non sterile N&S.^{3,4}

Rationale for access to needle and syringes

Since the mid 1980s awareness about HIV disease has supported a policy of increased access by IDUs to new N&S, however, it would appear that a number of jurisdictions have partially implemented this policy by only supporting needle and syringe exchanges (NSEs).^{5,6,7}

There are shortcomings with this measure alone, in that it stigmatises IDUs by providing a separate service, that it may be under utilised by non dependent IDUs, accessibility is determined by opening hours and location, that it may require the return of used N&S to obtain new equipment and that clientele may be deterred from NSE programs because they may have agendas to provide counselling and/or divert IDUs into treatment programs.

Use of opiates and stimulants

Opiates and stimulants are the two groups of drugs most likely to be used by IDUs in Australia. Heroin is the most important opiate, though opiates of licit origin, such as morphine, dextromoramide and methadone are also used by IDUs; cocaine and amphetamines are stimulants most used by IDUs.

The Social Issues survey, conducted in Australia in late 1985,⁸ surveyed drug use by a representative quota sample of 2791 Australians, identified a number of demographic variables that were predictive of the use of heroin, cocaine and amphetamines:

- use was more frequent by males than by females;
- that heroin and cocaine use peaked in the late 20s;
- that cocaine was found to have been more widely used by adolescents than heroin; and
- that heroin use was associated with living in a capital city.

The survey also found that for amphetamines:

- they were used by the widest spectrum of the community;
- there was a peak in usage for both males and females in the early 20s;
- there was a smaller peak in use of males aged in their early 40s; and
- that being male, single and living in a city was predictive of use.

Male amphetamine use by the over 40 age group is believed to reflect a period of usage of these drugs some 20 years earlier, when these men were in their late adolescence and early 20s.

Though the 1985 Social Issues survey did not specifically survey injecting drug use we would expect that sales of N&S would be higher in metropolitan localities which contain populations with higher proportions of individuals with the demographic variables predictive of heroin, cocaine and amphetamine use.

HIV disease and IDUs in Western Australia

By the end of 1990 there were 590 cases of known HIV infection in Western Australia, in 52 (8.8%) of these cases injecting drug use was admitted as a risk factor.

The recognition by Australian governments, Federal and State, of the serious health risk posed from the spread of HIV infection by the use of non sterile N&S has resulted in policy initiatives to increase access to injection equipment by IDUs.^{9,10}

Programs have been implemented in most Australian jurisdictions to increase the rate of sterile N&S use by IDUs by increasing availability and by providing information about techniques of risk minimisation, eg disinfection of used N&S, adequate disposal of used equipment, etc.

Needle and syringe programs in Western Australia

In this State there are two major programs that have been established to provide new injection equipment to IDUs. The first program, under the joint auspices of the Health Department of WA (HDWA) and the Pharmaceutical Council, was established in June 1987 and has pioneered the SS5 Pack.

The SS5 Pack which consists of 5 sterile 1 ml syringes plus 5 needles, a condom and lubricant, a swab, a rigid disposal container and printed materials, is pre packaged and supplied with one N&S without cost to participating retail pharmacies who add the remaining 4 N&S and sell it at the recommended price of \$3.00.

This program is not designed as a needle exchange scheme; its aims are to provide information about safer injecting practices, encourage use of the rigid disposal container, provide non stigmatising access to needles and syringes and increase the use of sterile injection equipment for IDUs.

The second program is a needle and syringe exchange (NSE) under the auspices of the WA AIDS Council (WAAC). It has operated since July 1987 from a number of locations, including a gay men's sauna (after hours), the WAAC premises, a drug detoxification unit (after hours) and an outreach van (from June 1988). The van

operates at specified times and locations over short periods of time each week in the Perth metropolitan area; most of the van's sites are in the inner city area adjacent to a methadone clinic.

The WAAC program provides supplies at no cost and without insistence of return of equivalent numbers of used N&S. The outreach van provides an interactive service with IDUs and provides literature, condoms and advice about techniques of needle cleaning, and provides disposal bins for the return of items of used injection equipment.

Both of these programs are supported by the jointly funded (50:50) Commonwealth/State AIDS prevention program. The SS5 Pack program is administered by the HDWA's AIDS Bureau, which is responsible for the production, packaging and distribution of the product to participating pharmacies. An advantage of this arrangement is that detailed data exists of all orders of every pharmacy that has participated in the program.

The WAAC has statistics of monthly totals of the number of items of injection equipment supplied and returned, however, monthly totals are not available prior to 1990. The WAAC data does not provide information about the number of N&S supplied by locality.

Objects of the study

There are a number of objects of this study:

- to analyse the data on the distribution of N&S as SS5 Packs through retail pharmacies from the inception of the SS5 program in June 1987, to December 1990;
- to identify trends in the supply of N&S and whether these are associated with demographic patterns in metropolitan localities and regional areas of WA; and
- to ascertain whether data on the consumption of N&S by IDUs from chemists could be an indicator of the prevalence injecting drug use in the metropolitan and regional areas of the State.

METHODS

Orders supplied to all participating chemists were converted into an Epi-Info database and analysed with the statistics option available in the package. Data on SS5 Packs supplied to participating chemists were aggregated by the five Australian Bureau of Statistics (ABS) metropolitan statistical divisions and the remainder of the State.

RESULTS

In 1987 there were 161 outlets involved in the SS5 Pack program, in 1988 there were 72 outlets, in 1989 there were 104 outlets and in 1990 there were 196 outlets. It is shown in Table 1 that from June 1987 to 31 December 1990, 106,988 SS5 Packs (ie 534,940 N&S) were supplied by the AIDS Bureau to participating outlets in WA.

Table 1: Annual totals SS5 packs supplied, 1987 - 1990

Year	Number of SS5 packs sold
1987 (half year)	5,106
1988	11,787
1989	21,864
1990	68,231
Total	106,988

There was a growth each year in the quantity of SS5 Packs provided, the number nearly doubled from 1988 to 1989, and tripled from 1989 to 1990. The mean monthly total of SS5 Packs supplied to chemists in WA were 729 per month in 1987, 982 per month in 1988, 1,822 per month in 1989, and 5,686 per month in 1990.

Non metropolitan areas

SS5 Packs were supplied largely to chemists in the Perth metropolitan area; to the end of 1990 only 6,795 (6.35%) of SS5 Packs had been supplied to outlets outside Perth. The 505 SS5 Packs distributed to non metropolitan chemists in 1987, at the inception of the program, involved 14 different country outlets, 10 of which never ordered any more SS5 Packs.

The distribution of SS5 Packs involved only a few outlets; for instance, in the last quarter 1990 the Goldfields region accounted for 1350 (65.85%) out of the 2,050 SS5 Packs supplied to non metropolitan chemists.

It can be seen that supplies to country outlets increased slowly since the last quarter 1989 (Table 2; Figure 1). In the last quarter 1990 the non metropolitan area, which contained 28% of the State's population, accounted for just under 10% of the total distribution of SS5 Packs in this State.

Perth metropolitan area ABS statistical divisions

100,193 SS5 Packs were supplied in the Perth metropolitan area to 31 December 1990. There was a disproportionate distribution of SS5 Packs between the five ABS statistical divisions of the metropolitan area compared to the proportion of the metropolitan population that lived in the five divisions.

The central and south east statistical divisions were over represented in total distribution of SS5 Packs; the former contained 12.4% of the population and accounted for 22.2% of the total supplied, the latter contained 19.3% of the population and accounted for 23.5% of the total supplied.

The east and north statistical divisions were under represented in total distribution of SS5 Packs; the former contained 16.1% of the population and accounted for 8.2% of the total distribution, the latter contained 29.9% of the population and accounted for 23.6% of the total supplied.

There was a close match between the proportion of SS5 Packs supplied to the south west statistical division, which contained 22.5% of the population and accounted for 22.5% of the total distribution.

Table 2: Quarterly totals of SS5 packs supplied, metropolitan and non metropolitan areas, 1987 - 1990

Quarter	Country		Perth		Total
	n	%	n	%	
1987					
First batch	475	18.5	2,093	81.5	2,568
Qtr 3	30	3.7	786	96.3	816
Qtr 4	-	-	1,722		1,722
1988					
Qtr 1	-	-	836		836
Qtr 2	-	-	2,869		2,869
Qtr 3	-	-	3,054		3,054
Qtr 4	160	3.2	4,868	96.8	5,028
1989					
Qtr 1	200	4.3	4,423	95.7	4,623
Qtr 2	-	-	4,424		4,424
Qtr 3	105	2.2	4,576	97.8	4,681
Qtr 4	270	3.3	7,866	96.7	8,136
1990					
Qtr 1	550	4.4	11,795	95.6	12,345
Qtr 2	905	6.7	12,581	93.3	13,486
Qtr 3	2,050	9.8	18,900	90.2	20,950
Qtr 4	2,050	9.6	19,400	90.4	21,450
Total	6,795	6.35	100,193	93.65	106,988

In 1990, the year in which the most SS5 Packs were distributed, there were 169 participating outlets in the metropolitan area; 33 (19.5%) were in the central division, 18 (10.7%) were in the east division, 44 (26%) were in the north division, 44 (26%) were in the south east division and 30 (17.8%) were in the south west division. Table 3 shows that in 1990 there was a more even distribution of SS5 Packs in the five metropolitan statistical divisions, except that there was a lower demand in the east division.

There were temporal trends in data; up to the end of 1989 the largest number of SS5 packs each quarter were provided in the central metropolitan statistical division. The growth in the consumption of SS5 Packs in the metropolitan area since the last quarter 1989 has occurred principally in the north, south east and south west metropolitan statistical divisions.

Figure 1: Number of SS5 packs distributed per quarter, metropolitan and country areas, Western Australia, 1987 - 1990

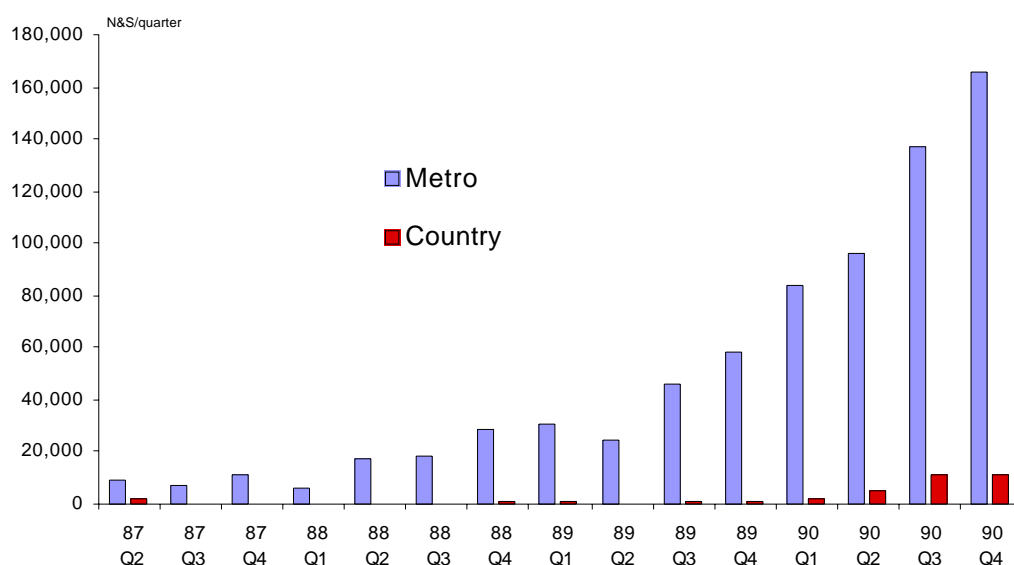


Table 3: Annual totals of SS5 packs supplied, metropolitan statistical areas, 1987 - 1990

Statistical division	1987		1988		1989		1990		Total	
	n	%	n	%	n	%	n	%	n	%
Central metropolitan	2,071	45.0	4,485	38.6	6,181	29.0	9,470	15.3	22,207	22.2
East metropolitan	409	8.9	875	7.5	1,385	6.5	5,540	8.8	8,209	8.2
North metropolitan	983	21.4	2,260	19.4	4,786	22.5	15,615	24.9	23,644	23.6
South east metropolitan	554	12.0	1,431	12.3	4,759	22.4	16,826	26.8	23,570	23.5
South west metropolitan	584	12.7	2,576	22.2	4,178	19.6	15,225	24.2	22,563	22.5
Total	4,601	100.0	11,627	100.0	21,289	100.0	62,676	100.0	100,193	100.0

Table 4: Rate of distribution of SS5 packs, all statistical areas, 1987 - 1990 (SS5 packs/100,000 population)

Statistical division	1987	1988	1989	1990
Central metropolitan	1,455	3,137	43,04	6,567
East metropolitan	237	489	741	2,885
North metropolitan	307	681	1,384	4,361
South east metropolitan	223	563	1,821	6,321
South west metropolitan	290	1,223	1,868	6,544
Mean metropolitan	424	1,039	1,833	5,253
Non metropolitan	121	38	133	1,260
Mean all State	340	763	1,371	4,176

The annual distribution of SS5 Packs, shown in Table 4 as a rate per 100,000 population, indicates that the mean metropolitan rate was 3.5, 27.3, 13.8 and 4.2 times higher than the non metropolitan rate in 1987, 1988, 1989 and 1990, respectively.

The distribution of SS5 Packs in the metropolitan area, in Table 4, found that:

- the highest rate was in the central division;
- the lowest rate was in the eastern division; and
- by 1990 similar rates, between 6,300 and 6,500 were recorded in three metropolitan areas (central, south east and south west).

The eastern division rate was 56%, 47%, 40% and 55% of the mean metropolitan rate in 1987, 1988, 1989 and 1990 respectively. The central division rate was 3, 4, 3, 2.3 and 1.25 times higher than the mean metropolitan rate in 1987, 1988, 1989 and 1990, respectively.

Localities

SS5 Packs were distributed in a number of well defined metropolitan localities; the highest rates were in the:

- Fremantle/South Fremantle/Beaconsfield; and
- Victoria Park/Carlisle/Bentley areas.

Lower rates of distribution were found in the:

- Mosman Park;
- Inglewood/Bayswater;
- Thornlie/Maddington;
- Belmont/Rivervale;
- South Lake/Yangebup; and
- Rockingham areas.

Socio economic status levels

Postcode areas have been classified by the ABS into four mutually exclusive socioeconomic status (SES) levels. The proportions of the Perth metropolitan population when broken down by SES scores based on the 1986 Census are SES Level 1 - 25.52%, SES Level 2 - 25.52%, SES Level 3 - 24.77% and SES Level 4 - 24.19%.

The largest number of SS5 Packs, 39,816 (39.8%), were distributed through outlets in postcode areas in SES Level 4, ie the lowest level; the smallest number of SS5 Packs, 15,242 (15.2%), were distributed through outlets in postcode areas in SES Level 1, the highest level. (Table 5). This difference was statistically significant, ($p < .001$; X^2).

There were no significant differences in the number of participating outlets in postcode areas by SES level (Table 6).

Demographic predictors of drug use

There was not a statistically significant relationship between the number of individuals in the age groups 15-29, 15-39, 20-29 and 20-39 by postcode area, and the total number of SS5 Packs sold from 1987-1990:

- 15-29 age group, $r = .227$, $p = 0.071$
- 15-39 age group, $r = .231$, $p = 0.066$
- 20-29 age group, $r = .234$, $p = 0.063$
- 20-39 age group, $r = .236$, $p = 0.060$

The correlation between the number of males by postcode area and sales was not statistically significant, $r = .212$, $p = 0.092$.

There was a statistically significant relationship between the number of individuals living in rented accommodation and sales by postcode area, $r = .287$, $p = 0.021$.

Needle and syringe exchange

The inclusion of the WAAC data, which does not identify locality in which N&S were distributed, shows that from July 1987 to the end of December 1990 245,604 N&S were provided to IDUs through the NSE program; in the year 1990 there were 171,031 N&S provided through WAAC programs.

Table 5: Number of SS5 packs supplied, ABS socio-economic status levels, metropolitan area, 1987 - 1990

SES level	Sales of SS5 packs		% population
	Total	%	
Level 1 (highest)	15,242	15.2	25.52
Level 2	21,672	21.6	25.52
Level 3	23,463	23.4	24.77
Level 4 (lowest)	39,816	39.8	24.19
Total	100,193	100.0	100.0

Table 6: Number of participating outlets, ABS socio economic status levels, metropolitan area, 1990

SES level	Number of outlets	%
1	42	24.9
2	39	23.1
3	44	26.0
4	44	26.0
Total	169	100.0

DISCUSSION

In this State efforts to reduce the spread of HIV disease due to the use of contaminated N&S have been addressed through a number of strategies, for instance, mass media campaigns to increase community awareness and small scale low key programs targeted at the IDU population.

Targeted programs, which includes the SS5 Pack project, have specific goals, eg knowledge of the efficacy of bleach to sterilise used N&S, safe disposal of used N&S and use of swabs. A critical component of the overall strategy has been to achieve increased access to and the use of new N&S in the Perth metropolitan and regional areas.

Success of the program has been dependent on the support and the active participation of retail pharmacies, whose role has been identified as non conditional providers of HIV disease preventive materials, rather than as suppliers of N&S to IDUs.

This is an important difference compared to some other jurisdictions, for instance New Zealand, where IDUs may have conditional access to new N&S and are expected to return used N&S in a container to retail pharmacists to obtain a discount on the purchase of new N&S.¹¹

The Western Australian experience indicates that it is essential to maximise the number of participating outlets and suggestions that retail pharmacists should act as a NSE by receiving used N&S would compromise the success of the program. For this reason we do not support suggestions made in New South Wales that retail pharmacists should adopt a role as a NSE.¹²

There are 400 retail pharmacies in this State, 3/4 of which are in the metropolitan area. In 1990 there were 196 participating pharmacies, 169 in the metropolitan area and 25 in non metropolitan locations; a participation of 56% of metropolitan and 25% of non metropolitan outlets.

This State's experience may be compared with that of the state of Victoria, where fewer pharmacies participate in the sale of new N&S, and where it took two years to set up 63 outlets.¹³

Implementation of the SS5 Pack program required an extended period of promotion by the AIDS Bureau support until demand increased and there were a sufficient number of participating outlets.

From June 1987 to December 1990 there were 106,988 SS5 Packs sold in this State, in the first 28 months of the program, to the end of September 1989, only 30,621 (28.6%) SS5 Packs were distributed; in the last 15 months, to the end of 1990, the remaining 76,367 (71.4%) SS5 Packs were distributed.

We believe metropolitan data for the period 1987-1990 is an indicator of the prevalence of injecting drug use by

locality. Though it is likely that some IDUs may not purchase SS5 Packs from their local pharmacist because of the possibility of identification, the large number of participating pharmacies in the metropolitan area means that purchase could have easily been made in adjacent suburbs.

We believe that there are significant populations of IDUs living in close proximity to Victoria Park/Bentley, and the Fremantle/South Fremantle regions. In 1990, for instance, the postcode localities of Victoria Park, Bentley/St James, Fremantle and South Fremantle/Beaconsfield had the four highest rates of distribution of SS5 Packs to IDUs, respectively 5.8, 7.3, 7.7 and 6.2 times higher than the mean metropolitan rate of 5,253 SS5 Packs/100,000 population.

In the period of the study there were no drug and alcohol (D&A) treatment services located in either of these areas, as all major D&A services were located adjacent to the northern inner city area.

As high rates of distribution of SS5 Packs were recorded in a number of suburbs adjacent to the south west metropolitan area close to Fremantle, this part of the metropolitan area is particularly in need of D&A services to respond to injecting drug use.

As the 1990 data indicates that injecting drug use appears to have increased in both the outer northern and southern metropolitan areas D&A services also need to be developed beyond the northern inner metropolitan area.

The State's only methadone program and illicit drug detoxification facility are both located in the central metropolitan statistical area and therefore in it was possible these facilities could have increased demand in this area through IDUs coming to these facilities.

However, as the mobile NSE was located a number of days per week adjacent to the site of the methadone program, it is likely clientele of the methadone program obtained supplies, at no cost, from this source rather than from their local retail pharmacy.

There were associations between higher sales in lower SES areas and demographic predictors of drug use, that is, being male, in the age range of late teens to late twenties and single. However, these findings were not significant at the $p=0.05$ level.

The finding of a statistically significant relationship between sales and rates of rental occupancy by postcode area may suggest that this is an important characteristic of the population of IDUs; however this may be confounded as occupancy is one of the factors used to determine SES level.

The findings about possible relationships between SES level and SS5 Packs suggests a number of alternative interpretations:

- That injecting drug use occurs evenly throughout the metropolitan area, but that IDUs living in lower SES areas more frequently purchase SS5 Packs as they are better informed about HIV disease risks from injecting drug use.
- That injecting drug use occurs evenly throughout the metropolitan area, but IDUs living in lower SES areas purchase more SS5 Packs as they inject drugs more frequently than IDUs living in higher SES areas.
- That injecting drug use does not occur evenly throughout the metropolitan area and that there are higher sales in lower SES metropolitan areas as populations living in these areas more frequently inject drugs.
- That IDUs in upper SES suburbs buy their N&S in lower SES to avoid identification.

We believe that the results of this study support the third interpretation, ie that in the Perth metropolitan area injecting drug use mostly frequently occurs in lower socioeconomic areas, in spite of the fact that SS5 Packs were sold at a minimum cost of \$3.00. As most sales occurred in the lowest SES areas of Perth this suggests the need for HIV preventive materials aimed at IDUs be carefully tailored to the educational levels and attitudes of a lower SES population.

There may be a number of reasons why the demographic predictors of drug use were not strongly supported. Firstly, as postcode population data was only available for the 1986 Census there may have been changes in population structure in the intercensal period since 1986. Secondly, population changes since the 1986 Census may have distorted the original ABS classification of postcodes by SES level. Thirdly, that other forms of injecting drug use had become prevalent in Perth since the 1985 Social Issues survey.

There is evidence from a 1989 survey of 195 IDUs in Perth, as part of the Australian National AIDS and Injecting Drug Use Study, that the injection of amphetamines and to a lesser extent LSD had become more prevalent amongst young IDUs by the late 1980s.¹⁴

There have also been reports in the popular press of an increase in injecting drug use in this State.¹⁵ Rates of sharing and re-use of N&S is not at present available; survey data is needed to further develop educational materials to support attitude and behavioural change by IDUs towards lower risk practices.

The results of lower rates of distribution of SS5 Packs in non-metropolitan areas may support the proposition that there are lower rates of (injecting) illicit drug use outside the Perth metropolitan area. An unexpected finding was

that in some regional areas there had been very few sales of SS5 Packs.

Case reports from regional D&A and health workers indicate that injecting drug use does occur in a number of these areas, but there had been strong local opposition to the sale of SS5 Packs because of a perception that providing N&S encouraged injecting drug use.

The increase in the sales after the third quarter 1989 coincides with an increased level of promotion of the SS5 Pack project by the AIDS Bureau. Evening educational seminars for pharmacists commenced in September 1989, and by the end of 1990 six seminars had been held in Perth; these seminars will be extended to non metropolitan areas in 1991.

It is expected increased familiarity with the objectives of the program will increase the number of participating of pharmacies and other health facilities, eg regional hospitals, in the non metropolitan areas of the State.

In 1990 62,676 SS5 Packs were sold in the Perth metropolitan area, ie a total of 313,380 new N&S, representing an average consumption of 6,026 N&S per week, ie 859 N&S per day. With the inclusion of the NSE data, in 1990 there were 484,411 N&S distributed to IDUs in Perth through SS5 Packs and the NSE program. This means that in 1990 IDUs in Perth consumed an average of 9,316 new N&S per week; ie a mean of 1,327 new N&S per day.

Further research into patterns of injecting drug use and frequencies of N&S re-use would enable inferences made about the size of the injecting drug using population.

It cannot be assumed that injecting drug use is less prevalent in non metropolitan areas, even though the data from the distribution of SS5 Packs found lower rates of usage of N&S in non metropolitan areas. The possibility of identification and stigmatisation is likely to be a significant barrier faced by non metropolitan IDUs when they obtain N&S from retail pharmacies, community health centres, nursing posts and regional hospitals.

We believe that as ready access to N&S in non metropolitan areas is a critical preventive measure against diseases spread by the re-use of non sterile injecting equipment, it is important to have community awareness programs linked to the SS5 Pack program.

Up to the present the program's focus has been on risk minimisation of HIV disease in IDUs attributable to the re-use of contaminated N&S, and engaging in sexual practices without the use of condoms.

Feedback suggests that consumers of SS5 Packs tend to prefer to receive N&S without the HIV preventive materials. It is arguable that repeat purchasers of SS5 Packs should not be obliged to purchase the complete SS5 Pack, thus enabling more resources to be devoted on N&S.

It presently costs the AIDS Bureau \$1,190 to provide 1,000 SS5 Packs (excluding salaries and indirect costs); N&S constitute 13.5% of this cost, the disposal container plus N&S is 27.7% of the total cost. The remainder of the cost is associated with printed materials, packaging, etc. Further expansion of the number of N&S may require compromises on other components, given that budgets are finite.

Infectious disease legislation is being reviewed in this State, and it is likely that if the law is amended a wider range of health facilities, eg hospital emergency departments and clinics, will be prepared to distribute SS5 Packs to IDUs. Clarification of ambiguities in the law in regard to supplying N&S for the purpose of self administration and in having possession of used N&S would also support the operation of the NSE program.^{16,17}

An important consequence of proposed legislative amendments for the registration of providers of N&S is that accurate data will be available on the distribution of all N&S to IDUs through all channels, including NSE programs and other outlets. This will be a very valuable source of information to implement focussed preventive and treatment program in specific localities in metropolitan and non metropolitan areas.

CONCLUSION

This study of the SS5 Pack program highlights a number of important principles:

- non stigmatised access by IDUs to new N&S;
- definition of a clear role for retail pharmacists;
- development of support of health care providers in regional areas; and
- that the SS5 Pack program be conceptualised as part of an overall strategy to provide services to IDUs.

The results show that by the end of 1990 large numbers of IDUs in the Perth metropolitan area had access to sterile injection equipment through SS5 Packs and the NSE programs operated by the WA AIDS Council. The effect of these measures were to provide IDUs with a range of HIV preventive materials about the risks of transmission of infection through re-use of non sterile N&S, and through unsafe sexual practices. We believe that the benefits of these measures will accrue over time through lower rates of infection of HIV and hepatitis B in the population of IDUs in Western Australia.

As increased access to SS5 Packs is an outcome measure of a successful HIV disease preventive strategy to decrease the re-use of contaminated N&S, it may be necessary to educate the community that increased distribution do not mean injecting drug use has become more prevalent, but that IDUs are adopting safer injecting practices.

The study rebuts the commonly held view that IDUs are irresponsible and have little interest in their own health and welfare, but on the contrary are willing to purchase

preventive materials. This means that large numbers of IDUs in this State have become involved in a public health measure that recognises that the solution to the problems related to injecting drug use requires toleration and compromises by both IDUs and the community.

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