

TASK FORCE ON DRUG ABUSE

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NEEDLES & SYRINGES WESTERN AUSTRALIA 1995

Introduction

This Bulletin provides a summary of the number of needles and syringes (N&S) distributed in 1995 in Western Australia to injecting drug users (IDUs) through retail pharmacies, authorised needle and syringe exchange programs (NSEPs), hospitals, community health centres, nursing posts, vending machines and other approved outlets. The Bulletin also contains an update of the information previously covered in the report of the Task Force on Drug Abuse for the period 1987 to 1994, in relation to trends in the distribution of N&S to IDUs in metropolitan and non-metropolitan areas of WA.

At present the approved method for the sale of N&S through retail pharmacies is the FITPACK. Each FITPACK contains five 1 ml new needles and syringes and is typically sold for between \$3.50 and \$4.50. The FITPACK is intended to minimise the risk of accidental needle stick injury by its construction as a rigid plastic container incorporating a compartment with a built-in locking mechanism to retain N&S after their use.

The only authorised NSEP in this State in 1995 was operated by the WA AIDS Council (WAAC), which dis-

tributed N&S loose as well as in FITPACKS. The WAAC NSEP distributes a variety of injection equipment through a van located in strategic locations in the metro area frequented by persons from high risk groups and through a gay sauna. The WAAC injecting drug users program encourages the return of used N&S for safe disposal, the provision of a wide range of educational materials and practical advice and one-to-one interaction with those who utilise the service. A detailed history of initiatives to distribute N&S to IDUs in this State is contained in the Report of the Task Force on Drug Abuse.¹

For a number of years the main focus of campaigns to increase access to sterile N&S was to reduce the increased risk of HIV posed by re-use of infected N&S. More recently there has been a recognition that increased access to N&S also provides great potential in reducing the transmission of Hepatitis B (HBV) and Hepatitis C (HCV) between IDUs through the use of non-sterile injection equipment.

Comparative data

The Australian rate of HIV infection for exposure categories involving injecting drug use is very low compared

Table 1: Annual totals of needles and syringes by type of outlet, 1987-1995

Year	Type of outlet							Total
	Chemist	NSEP	Hospital	Community Health Centre	Vending Machine	Nursing Post	Other	
1987	23,990	6,000	-	-	-	-	-	29,990
1988	59,380	12,000	-	-	-	-	-	71,380
1989	120,260	42,648	-	-	-	-	-	162,908
1990	340,355	171,031	-	250	-	-	-	511,636
1991	394,820	444,225	2,560	1,000	2,385	200	-	845,190
1992	420,150	349,806	7,400	-	1,920	-	-	779,276
1993	817,025	372,234	3,570	750	-	30	500	1,194,109
1994	1,144,710	515,306	37,735	6,605	7,747	250	750	1,713,103
1995	1,070,280	369,645	36,960	3,000	61,030	-	2,770	1,543,685
1987-1995	4,390,970	2,282,895	88,225	11,605	73,082	480	4,020	6,851,277

Source: Needle and Syringe Database, Disease Control Service, Health Department of WA.

Table 2: Number of outlets distributing needles and syringes, 1993-1995

Type of outlet	1993	1994	1995
Chemist	371	388	402
Community Health Centre	2	5	1
Hospital	5	12	21
NSEP	1	1	1
Nursing Post	1	2	1
Other	1	4	6
Vending Machine	1	1	1
Total	382	413	433

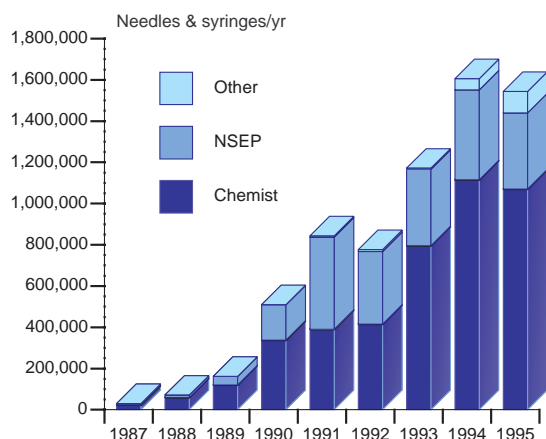
Source: Needle and Syringe Database, Disease Control Service, Health Department of WA.

Table 3: Average number of needles and syringes distributed per year by type of outlet, 1993-1995

Type of outlet	1993	1994	1995
Chemist	2,202	2,950	2,662
Community Health Centre	375	1,321	3,000
Hospital	714	3,145	1,760
Other	93,066	65,507	48,138
Total	96,357	72,922	55,561

Source: Needle and Syringe Database, Disease Control Service, Health Department of WA.

Figure 1: Annual totals of needles and syringes, 1987-1995



Source: Needle and Syringe Database, Disease Control Service, Health Department of WA.

to the overseas experience. In 1995 there were 219 new diagnoses of HIV infection in Australia, of which 15 (6.8%) involved injecting drug use (including male IDUs with homosexual/bisexual contact, and female and heterosexual male contact).²

In this State over the period 1983 to 1995 there were 952 new diagnoses of HIV, of which 113 (11.8%) involved the exposure category of injecting drug use (including male IDUs with homosexual/bisexual contact). In 1995 in WA there was a total of 74 new diagnoses of HIV, of which 11 (14.8%) involved exposure category of injecting drug use, 5 (6.7%) of whom had male homosexual/bisexual contact.

In comparison to these data, in the United States very high rates of HIV have been reported:³

- 36% of the 513,486 AIDS cases reported from 1981 to 1995 involved IDUs or their heterosexual sex partners;
- 34% of AIDS cases in 1995 were associated with injecting drug use; and
- the number of injecting drug use-related AIDS cases (including IDUs and heterosexual partners of IDUs) grew by 48% between 1990 and mid 1995.

The spread of HIV from the population of IDUs to the wider community through heterosexual contact is highlighted in a report of 1995 American AIDS notifications. "When analysed by sex and sexual orientation, 66% (7,125 of 10,777) of AIDS cases reported among women and 85% (14,985 of 17,686) among heterosexual men with an identified exposure category were IDU-associated."⁴

Surveys of IDUs in New Zealand and the Eastern States indicate that between about 60 and 85% of the populations surveyed had HCV antibodies.^{5, 6, 7, 8} It has been recently reported 80% of patients attending the WA methadone program have tested for HCV antibodies.⁹

Period 1987-1995

A total of 6,851,277 N&S were distributed over the period 1987 to 1995 in this State (Table 1, page 1), of which:

- just under two thirds were provided through chemists;
- one third were provided through WAAC's NSEP; and
- only 2.6% were provided through other outlets.

A breakdown of distribution by type of outlet indicates that hospitals and other community-based health providers had up to the end of 1995 played a limited role in providing N&S to IDUs. Over the 8½ year period¹⁰ out of the total of 6,851,277 N&S:

- chemists provided 4,390,970 (64.1%);
- NSEPs provided 2,282,895 (33.3%);

- country hospitals provided 88,225 (1.3%);
- community health centres provided 11,605 (0.2%);
- vending machines provided 73,082 (1.1%); and
- other outlets provided 4,500 (0.1%).

Until recently very few N&S were distributed through vending machines. A total of 4,305 N&S were sold in 1991 and 1992 through a vending machine at the WAAC's former premises in Northbridge. A more reliable vending machine, operated by the Alcohol and Drug Authority (ADA) since mid 1994, is located at the Central Drug Unit,

the ADA's 24 hour residential detoxification facility in East Perth. A total of 61,030 N&S were purchased from this facility in 1995. There are no other authorised N&S vending machines in this State.

The annual growth of total numbers of N&S distributed in WA has occurred in stages. There was a steady increase in the rate of annual growth from the inception of programs up to the early 1990s. Since the early 1990s there has been a lower rate of expansion as demand has been met. There was a drop of nearly 10% recorded in 1995, when about 1.5 million N&S were provided. Over

Table 4: Annual totals of needles and syringes by type of outlet and year metropolitan area, 1987-1995

Year	Type of outlet							Total
	Chemist	NSEP	Hospital	Community Health Centre	Vending Machine	Nursing Post	Other	
1987	21,915	6,000	-	-	-	-	-	27,915
1988	58,580	12,000	-	-	-	-	-	70,580
1989	116,760	42,648	-	-	-	-	-	159,408
1990	311,130	171,031	-	-	-	-	-	482,161
1991	339,750	444,225	-	-	2,385	-	-	786,360
1992	361,115	349,806	500	-	1,920	-	-	713,341
1993	707,275	372,234	750	-	-	-	-	1,080,259
1994	970,495	515,306	3,500	-	7,747	-	750	1,497,798
1995	918,450	369,645	5,015	-	61,030	-	2,270	1,356,410
1987-1995	3,805,470	2,282,895	9,765	-	73,082	-	3,020	6,174,232

Source: Needle and Syringe Database, Disease Control Service, Health Department of WA.

Table 5: Annual totals of needles and syringes by type of outlet and year country areas, 1987-1995

Year	Type of outlet							Total
	Chemist	NSEP	Hospital	Community Health Centre	Vending Machine	Nursing Post	Other	
1987	2,075	-	-	-	-	-	-	2,075
1988	800	-	-	-	-	-	-	800
1989	3,500	-	-	-	-	-	-	3,500
1990	29,225	-	-	250	-	-	-	29,475
1991	55,070	-	2,560	1,000	-	200	-	58,830
1992	59,035	-	6,900	-	-	-	-	65,935
1993	109,750	-	2,820	750	-	30	500	113,850
1994	174,215	-	34,235	6,605	-	250	-	215,305
1995	151,830	-	31,945	3,000	-	-	500	187,275
1987-1995	585,500	-	78,460	11,605	-	480	1,000	677,045

Source: Needle and Syringe Database, Disease Control Service, Health Department of WA.

the 8½ year period N&S were distributed in four broad stages as follows (Figure 1, page 2):

- 1) Over the period 1988-1991 the number of N&S distributed increased 12-fold, from 71,380 in 1988 (the first full year that data was collected) to 845,190 in 1991.
- 2) In 1992 a total of 779,276 N&S were distributed, a drop of 7.8% from the previous year.
- 3) Over the next two years the number of N&S distributed more than doubled, such that a total of 1,713,103 N&S were distributed in 1994.
- 4) In 1995 a total of 1,543,685 N&S were distributed, a drop of 9.9% from the previous year.

The increasing importance of chemists as a source of N&S¹² for IDUs over the period 1987 to 1995 is illustrated in a quarterly breakdown by type of outlet (Table 8,

Table 6: Quarterly totals of needles and syringes by type of outlet, metropolitan area, 1995

Type of outlet	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Total
Chemist	267,190	225,670	213,950	211,640	918,450
Community Health Centre	-	-	-	-	-
Hospital	500	1,000	1,500	2,015	5,015
NSEP	106,594	91,863	82,999	88,189	369,645
Vending Machine	21,170	18,340	9,795	11,725	61,030
Other	150	1,000	1,000	120	2,270
Total	395,604	337,873	309,244	313,689	1,356,410

Source: Needle and Syringe Database, Disease Control Service, Health Department of WA.

Table 7: Quarterly totals of needles and syringes by type of outlet, country areas, 1995

Type of outlet	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Total
Chemist	42,385	36,250	35,320	37,875	151,830
Community Health Centre	500	2,000	-	500	3,000
Hospital	5,500	8,790	6,260	11,395	31,945
NSEP	-	-	-	-	-
Vending Machine	-	-	-	-	-
Other	-	500	-	-	500
Total	48,385	47,540	41,580	49,770	187,275

Source: Needle and Syringe Database, Disease Control Service, Health Department of WA.

page 6; Figure 2, page 5). For only the last three quarters of 1991 were a greater number of N&S distributed through the WAAC's three NSEPs (a mobile van, a gay sauna and the WAAC office) than through chemists.

Since 1992 the increase in the distribution of N&S to IDUs in this State can be almost wholly attributed to the expanded role of retail pharmacies. The total number of N&S distributed per quarter through WAAC's NSEP declined slightly after reaching a peak of just under 130,000 in the December 1991 quarter. From the beginning of 1992 up to mid 1994 there was a relatively constant number of N&S provided each quarter by WAAC. In the September and December 1994 quarters the number of N&S provided by NSEPs increased. However, since the March 1995 quarter to the end of 1995 there was a decrease of 17.2% in the N&S provided through NSEPs in this State.

While data are not available for the period 1987 to 1992, from 1993 to 1995 the total number of participating chemists increased by 8%, from 371 in 1993 to 402 in 1995 (Table 2, page 2). Over this three year period the average number of N&S sold per year per participating chemist increased by one fifth, from 2,202 in 1993 to 2,662 in 1995 (Table 3, page 2).

There is a possibility that in addition to the N&S sold to IDUs as FITPACKS, a small number of loose N&S were distributed through chemists to IDUs prior to amendments to the *Poisons Act* in May 1994. The report by the Task Force on Drug Abuse contains an adjustment to the 1994 data, as it was estimated that 20% of 1 ml syringes available for sale to diabetics were purchased by IDUs.¹¹

In 1994 a total of 1,683,303 N&S were recorded as being sold to IDUs through chemists and NSEPs. However, after adjustment to take account of additional sales of 1 ml "diabetic" syringes a total of 1,713,535 N&S were believed to have been sold to IDUs. As it is believed that few loose N&S are now sold to IDUs following the 1994 amendment, the 1995 data have not been adjusted.

The success in programs to maximise IDUs' access to sterile injection equipment is illustrated by the increase in the average number of N&S from 1988 (the first full year of data) up to the present. The *daily* mean numbers of N&S provided over the period were:

- 195 in 1988;
- 446 in 1989;
- 1,402 in 1990;
- 2,316 in 1991;
- 2,129 in 1992;
- 3,270 in 1993;
- 4,693 in 1994; and
- 4,229 in 1995.

Metropolitan vs country areas: 1987-1995

Just over one quarter of WA's population live in the country. However, nine out of every 10 needles and syringes sold to IDUs over the period 1987-1995 were distributed in the metropolitan area (Table 9, page 7). Out of the total of 6,851,277 N&S distributed in this State over the 8½ year period, 6,174,232 were obtained by IDUs at metropolitan outlets and 676,545 were obtained from outlets in non-metropolitan towns and regional centres (Table 9, page 7).

The number of N&S provided per quarter to IDUs living outside the metropolitan area has gradually increased (Figure 3, page 8). Since December 1993 the proportion of N&S provided to IDUs in non-metropolitan areas has remained above 10 per cent of total N&S each quarter (Table 9, page 7). Apart from the second quarter of 1987 (which was part of a trial distribution to all chemists) when 16.1% of N&S distributed went to country areas, few N&S were distributed in country areas until about 1994.

The distribution of N&S can be compared according to the crude rate of the number of N&S sold per 10,000 population using 1991 ABS population data.¹² When applied to the annual totals of N&S obtained by IDUs in the metropolitan (Table 4, page 3) and non-metropolitan (Table 5, page 3) areas, as a crude rate for 1995 there were:

- 11,412.8 N&S provided per 10,000 population from metropolitan outlets; and
- 4,175.6 N&S provided per 10,000 population in the country.

As a ratio of the 1995 crude rates there were 2.7 times as many N&S provided per 10,000 population through

metropolitan outlets as compared to non-metropolitan outlets.

1995 in detail

A more detailed analysis of the number of N&S distributed per quarter by type of outlet for 1995 is contained in Tables 6 and 7 (page 4). This data shows that a decline occurred in both metropolitan and non-metropolitan chemists over the four quarters of 1995. This drop in the number of N&S was greater in metropolitan chemists, where there was a drop of 20.8%, compared with country chemists, where there was a drop of 10.6%.

There was a decline of 17.3% recorded in the number of N&S provided through NSEPs in the metropolitan area. (There are no NSEPs outside the metropolitan area.) The decrease in N&S provided through vending machines was much greater, with a drop of 44.6% recorded over the year.

The trend in the number of N&S distributed through hospitals went against the falls recorded by NSEPs and chemists. The number of N&S provided through country hospitals more than doubled, from 5,500 in the March quarter to 11,395 in the December quarter. The number of N&S provided through metropolitan hospitals also increased, from 500 in the first quarter of 1995, to 2,015 in the last quarter.

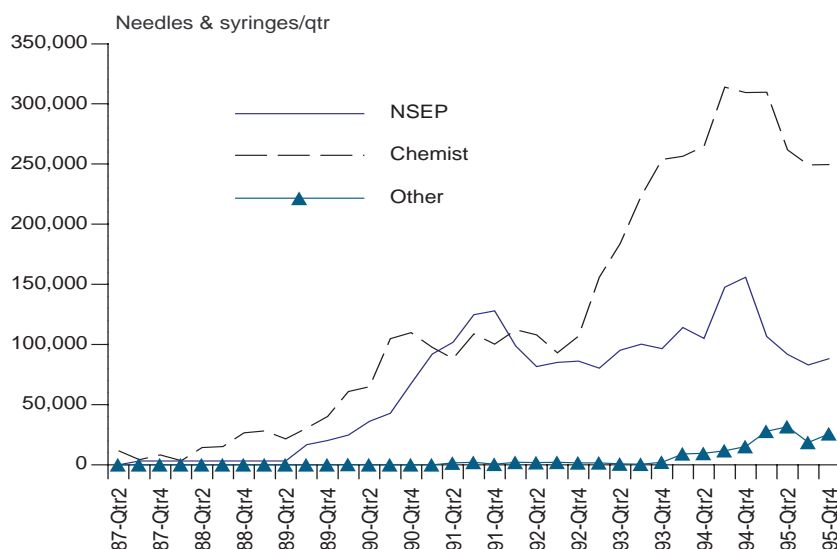
Discussion

It should be emphasised that a range of factors, such as age, drug using history and attitude will determine the rate of re-use of unsterile injection equipment. Examples of initiatives to address these factors, which are not detailed in this Bulletin, include funding for local government to provide disposal bins, outreach programs targeted at young people in high risk situations and educational materials provided through health providers.

There has been a growing recognition over the past decade that the provision of sterile injection equipment to IDUs is most effective when complemented by other strategies to maximise the one-time use of N&S. The need for a clear legislative framework is also important. For instance, following the 1994 amendment to the *Poisons Act* an increasing number of N&S are being distributed through hospitals. A growing number of rural hospitals have sought approval to distribute N&S and this may reflect a growing acceptance by small communities for IDUs to have access to sterile injection equipment

Continued on page 8

Figure 2: Quarterly totals of needles and syringes by type of outlet, whole state, 1987-1995



Source: Needle and Syringe Database, Disease Control Service, Health Department of WA.

Table 8: Quarterly totals of needles and syringes by type of outlet, whole state, 1987-1995

Years	Qtr	NSEP	Chemist	Other	Total
1987	2	-	11,670	-	11,670
	3	3,000	4,080	-	7,080
	4	3,000	8,240	-	11,240
1988	1	3,000	3,430	-	6,430
	2	3,000	14,220	-	17,220
	3	3,000	15,190	-	18,190
	4	3,000	26,540	-	29,540
1989	1	3,000	28,210	-	31,210
	2	3,000	21,370	-	24,370
	3	16,587	30,500	-	47,087
	4	20,061	40,180	-	60,241
1990	1	24,610	60,975	250	85,835
	2	36,117	64,930	-	101,047
	3	42,894	104,700	-	147,594
	4	67,410	109,750	-	177,160
1991	1	91,945	97,530	-	189,475
	2	101,970	88,210	1,400	191,580
	3	124,677	108,780	1,960	235,417
	4	128,018	100,300	400	228,718
1992	1	98,729	112,160	2,000	212,889
	2	81,720	108,000	1,750	191,470
	3	85,179	93,150	2,050	180,379
	4	86,098	106,840	1,600	194,538
1993	1	80,390	155,945	1,620	237,955
	2	95,212	183,705	630	279,547
	3	100,201	223,545	450	324,196
	4	96,431	253,830	2,150	352,411
1994	1	114,163	256,340	9,100	379,603
	2	105,139	264,760	9,400	379,299
	3	147,746	314,070	11,705	473,521
	4	156,005	309,540	15,135	480,680
1995	1	106,594	309,575	27,820	443,989
	2	91,863	261,920	31,630	385,413
	3	82,999	249,270	18,555	350,824
	4	88,189	249,515	25,755	363,459
1987-1995		2,294,947	4,390,970	165,360	6,851,277

Source: Needle and Syringe Database, Disease Control Service, Health Department of WA.

Table 9: Quarterly totals and proportion of needles and syringes metropolitan and country areas, 1987-1995

Years	Qtr	Total metropolitan		Total country		Total State
		N&S	% of the State	N&S	% of the State	
1987	Qtr2	9,645	82.6	2,025	17.4	11,670
	Qtr3	7,030	99.3	50	0.7	7,080
	Qtr4	11,240	100.0	-	0.0	11,240
1988	Qtr1	6,430	100.0	-	0.0	6,430
	Qtr2	17,220	100.0	-	0.0	17,220
	Qtr3	18,190	100.0	-	0.0	18,190
1989	Qtr1	28,740	97.3	800	2.7	29,540
	Qtr2	30,460	97.6	750	2.4	31,210
	Qtr3	24,370	100.0	-	0.0	24,370
1990	Qtr1	45,837	97.3	1,250	2.7	47,087
	Qtr2	58,741	97.5	1,500	2.5	60,241
	Qtr3	83,585	97.4	2,250	2.6	85,835
1991	Qtr1	95,822	97.8	5,225	5.2	101,047
	Qtr2	136,594	92.5	11,000	7.5	147,594
	Qtr3	166,160	93.8	11,000	6.2	177,160
1992	Qtr1	177,695	93.8	11,780	6.2	189,475
	Qtr2	178,420	93.1	13,160	6.9	191,580
	Qtr3	217,427	92.4	17,990	7.6	235,417
1993	Qtr1	212,818	93.0	15,900	7.0	228,718
	Qtr2	193,639	91.0	19,250	9.0	212,889
	Qtr3	175,720	91.8	15,750	8.2	191,470
1994	Qtr1	163,424	90.6	16,955	9.4	180,379
	Qtr2	180,558	92.8	13,980	7.2	194,538
	Qtr3	216,465	91.0	21,490	9.0	237,955
1995	Qtr1	253,867	90.8	25,680	9.2	279,547
	Qtr2	293,821	90.6	30,375	9.4	324,196
	Qtr3	316,606	89.8	35,805	10.2	352,411
1995	Qtr1	325,923	85.9	53,680	14.1	379,603
	Qtr2	330,619	87.2	48,680	12.8	379,299
	Qtr3	417,941	88.3	55,580	11.7	473,521
1995	Qtr1	423,315	88.1	57,365	11.9	480,680
	Qtr2	395,604	89.1	48,385	10.9	443,989
	Qtr3	337,873	87.7	47,540	12.3	385,413
1995	Qtr1	309,244	88.1	41,580	11.9	350,824
	Qtr2	313,689	86.3	49,770	13.7	363,459
	Qtr3					
1987-1995		6,174,732	90.1	676,545	9.9	6,851,277

Source: Needle and Syringe Database, Disease Control Service, Health Department of WA.

as a prophylactic measure against the spread of HIV, HBV and HCV. There is a growing evidence of the effectiveness of NSEPs. For instance, American research indicates decreases of at least 33% in HIV infection in IDUs who attend NSEPs compared to non-attenders,¹³ and a recent review of NSEPs found that “[a]lmost 3,000 cases of HIV were estimated to have been avoided in Australia in 1991”.¹⁴

The serious risks posed by injecting drug use have also resulted in changes in attitudes towards providing treatment services. A recent report by Ali et al also noted that “*Injecting drug users provide the greatest opportunity for HIV to be transmitted into the wider community, and while Australia currently has a relatively low rate of HIV infection amongst injecting drug users, treatment services will play an important role in maintaining this low rate.... Not to provide treatment to this group would greatly enhance the risk of spread of HIV both within the injecting drug using community and, through sexual contacts, to the wider population.*”¹⁵

There is acceptance that in a community where injecting drug use is an inescapable reality, NSEPs play a vital role in minimising risks to users and others and are a necessary part of comprehensive public health and drug abuse prevention and treatment programs.

The data reported here reflect the development of such programs in Western Australia, showing areas of success in a complex field as well as areas where there is still scope for further development.

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¹⁰ The distribution of N&S in this State commenced in June 1987.

¹¹ Western Australian Task Force on Drug Abuse. *Protecting the community. The report of the Task Force. Vol. 2*. Perth, Ministry of Premier & Cabinet, 1995, 151.

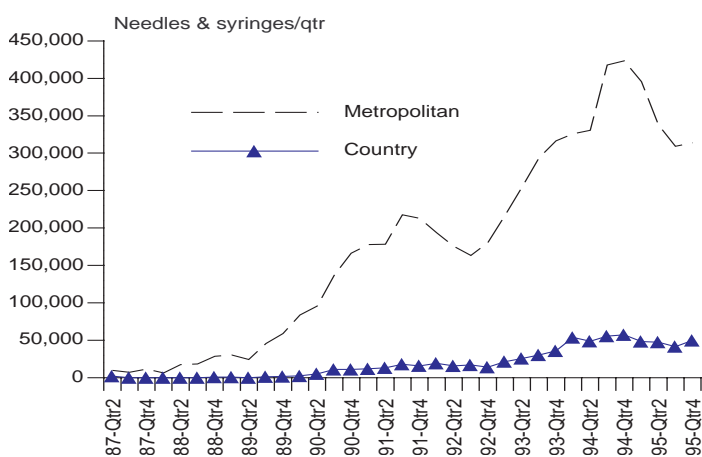
¹² Before the introduction of FITPACKS in July 1992 needles and syringes were provided to IDUs as the SS5 Pack. The SS5 Pack included a disposal container, five 1 ml syringes, literature and condoms.

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Figure 3: Quarterly totals of needles and syringes, metropolitan and country areas, 1987-1995



Source: Needle and Syringe Database, Disease Control Service, Health Department of WA.

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