New Zealand Needle Exchange Programme

Availability Report

July 2021-June 2022

NEEDLE EXCHANGE SERVICES TRUST | December 2022

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In memory of Chris Brough

Peer, stalwart supporter of the NZNEP, dedicated colleague, and friend

24 April 1962 to 16 July 2022

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Acronyms and Glossary

ADIO — Auckland Drug Information Outreach
- East Street
- South Auckland
- Wellsford
- NINE Whangārei

DHDP — Drugs, Health & Development Project
- Wellington
- Palmerston North
- Napier
- Whanganui
- Wairarapa

DISC — Drug Injecting Services in Canterbury
- Christchurch
- New Brighton
- Nelson
- Dunedin
- Invercargill
- West Coast Mobile

MIDLANDS — Midlands Trust
- Hamilton
- New Plymouth
- Rotorua
- Mount Maunganui

TNET — Timaru Needle Exchange Trust
- Timaru
- Ashburton

DAA — Direct Acting Antiviral
NEST — Needle Exchange Services Trust
NEX — Needle Exchange
NZNEP — New Zealand Needle Exchange Programme
NZPC – New Zealand Prostitutes' Collective (aka Aotearoa NZ Sex Workers' Collective)
Regional Trusts — ADIO, DHDP, DISC, MIDLANDS, TNET
Purchased – wholesale equipment (i.e. not funded under the free 1-4-1 scheme)

Introduction

This report provides information on the distribution of injecting equipment — needles, syringes and wheel filters — by the New Zealand Needle Exchange Programme (NZNEP), for the July 2021 to June 2022 financial year. The present reporting period will be referred to by the short form June 22.

The NZNEP provides Harm Reduction services across New Zealand through a network currently consisting of 20 dedicated exchanges, 2 mobile services, 1 online shop, 196 pharmacies and 6 alternative outlets. Established in 1987, the NZNEP has grown during the last 34 years with over 4 million needles now distributed annually. The programme is predominantly funded by the Ministry of Health.

As part of our broader harm reduction services, the NEP distributes two broad categories of equipment: 1) free equipment known as one-for-one (141); and 2) other equipment purchased by clients at a retail price, but sometimes referred to in reporting as purchased.

In 2004 the Ministry of Health policy changed and a range of equipment was provided free to clients through the NZNEP programme. The free equipment includes 3ml syringes and 27 types of needles. This equipment in the report will be referred to as "free". The list of free equipment approved by the Ministry has not been updated since 2004 despite drug use changing over this period, and multiple requests by the programme. Late in 2021, however, following a Ministry request NEST submitted a list of equipment it viewed should be free, to the Ministry.

Other equipment covered in this report and not available under this free scheme must be purchased by clients from NZNEP outlets and so will be referred to as "purchased" equipment. This includes filters, butterfly needles and syringes with fixed needles, and a range of syringes (other than the 3ml syringe).

NZNEP outlets are also of two general types. These include: 1) NZNEP dedicated needle exchanges (NEXs) providing harm reduction equipment and advice; and 2) participating pharmacies and alternate outlets who provide equipment but not harm reduction advice. Pharmacy service types include:

Level One
These outlets stock only '10 packs' which contain: 10 x 3ml syringes and 26 gauge needles, a returns container, sexual lubricant, condom, educational resource and swabs.

Level Two
Stock single injecting equipment as well as '10 packs'. They can stock a range of needles and syringes, plus filters, sterile water, etc. They can access specified equipment if required.

One For One (141) Free Exchange
Clients are able to exchange 3ml syringe & needles free (excluding butterflies or piecing needles) with returned used equipment.

Alternate outlets include sexual health clinics and services run by the Aotearoa Sex Workers' Collective.

1. Overview of total distribution - needles only

Table 1: July-June 2022 combined total distribution of needles by outlet and equipment type (free or purchased)

Year		Pharmacies		NEX		Online store		Total
Jul 2021 - Jun 2022	1-4-1 (Free)	550,102	16.2%	2,841,891	83.8%			3,391,993
		85.9%		85.7%				84.5%
Jul 2021- Jun 2022	Purchased	90,237	14.5%	475,312	76.3%	57,080	9.2%	622,629
		14.1%		14.3%				15.5%
		640,339	16.0%	3,317,203	82.6%	57,080	1.4%	4,014,622

Table 1 describes distribution figures for the period, for free and purchased needles from both NEXs and pharmacy/alternate outlets. The figures and percentages in the 'Totals' column describe the total distribution of all needles, for the whole programme. The two far right columns list percentages of total distribution, for free and purchased equipment, for the two types of outlets, i.e. pharmacies/alternates and NEXs, respectively. For example, 550,102 free needles distributed by pharmacies/alternate outlets comprise 16.2% of all free distributed needles. Similarly, 475,312 needles purchased from NEXs comprise 76.3% of all purchased needles distributed during this reporting period. Overall, NEXs distributed 82.6% (**3,317,203**) of all needles in this reporting period. Of note is the increased distribution from the online store for this reporting period (up 155%), with its distribution comprising 9.2% of all purchased equipment (only purchased equipment is available from the online store).

1.1 Distribution Totals

For this reporting period the distribution of needles from all outlets increased to **4,014,622** units representing a 2.8% increase over the preceding 12-months.[1]

A total of 4 million needles were distributed which represents an increase of 2.8% compared with July 2021-June 2022.

The bulk of all equipment (82.6%) was distributed by NZNEP NEXs (*Table 1*). This represents a 0.7% increase for NEX distribution compared with the previous 12-months. In comparison, pharmacy/alternate distribution (**640,339** needles) was up by 8.9% compared with July 2020-June 2021. Additionally, although only accounting for 1.4% of the total distribution, the online store's distribution was up 155% over the preceding 12-months.

1.2 Equipment types — free and purchased needles

Free Needles

Of the total needles, **3,391,993**, 84.5% were distributed free. These 3.4 million free needles represent a 2.1% increase in free distribution compared with the preceding 12-months.

[1] This total includes 57,080 needles sold through the Online Shop / NEST.

Of the 4 million needles distributed, 3.31 million were distributed by Needle Exchanges alone, representing an increase of 0.7% compared with the preceding 12-months.

Purchased Needles

By contrast, there was an increase (6.76%) in the distribution of purchased needles, with this category of equipment comprising 15.5% of all needles distributed.

There was an increase in purchased needles of 6.76% compared with the preceding 12-months

1.3 Interactions between outlet and equipment types

A more nuanced understanding of national distribution trends is obtained by analysing distribution by outlet type. For example, compared with the preceding 12-months, pharmacy/alternate distribution of free equipment (*table* 1; **550,102**) increased by 10.5% while for NEXs (**2,841,891**) this increased by 0.65%. However, pharmacies and alternate outlets purchased equipment was effectively static over the reporting period, i.e. 90,237 (2022) vs 90,219 (2021), while for NEXs there was a 1% increase (i.e. 4,682 units), with this increasing to 1.74% if the online store is included.

Free needles distributed by NEXs increase by 0.65%, whilst those distributed by pharmacies and alternate outlets increased by 10.5%

Purchased needles distributed by NEXs only, increased minimally by 1% (4,682 units), whilst those distributed by pharmacies and alternate outlets were static between the two reporting periods

1.4 Reasons for 2022 distribution trends and variations compared with 2021

In terms of overall numbers, modest changes in distribution of needles for the current period are driven by both the uptake of free equipment from pharmacies and purchased equipment from NEXs and particularly the online store. Thus, while pharmacies/alternate outlets saw a proportionately larger increase (10.5%) in free needles during the period, NEXs distribution growth was minimal, with the online store having the greatest impact (up 155%).

Therefore, the programme's total overall increase for the period relative to the preceding 12-months (2.8%) is explained by NEXs dominating needle distribution (82.6%) and free needles accounting for 84.5% of all distributed needles (*table 1*). This trend has been evident for some years and reflects the fact that clients value the safe, non-judgemental and stigma-free setting created by the NZNEP peer-based service (see *figure. 1* below).

NEXs distribute 82.6% of all needles

Free needles make up 84.5% of total equipment distributed

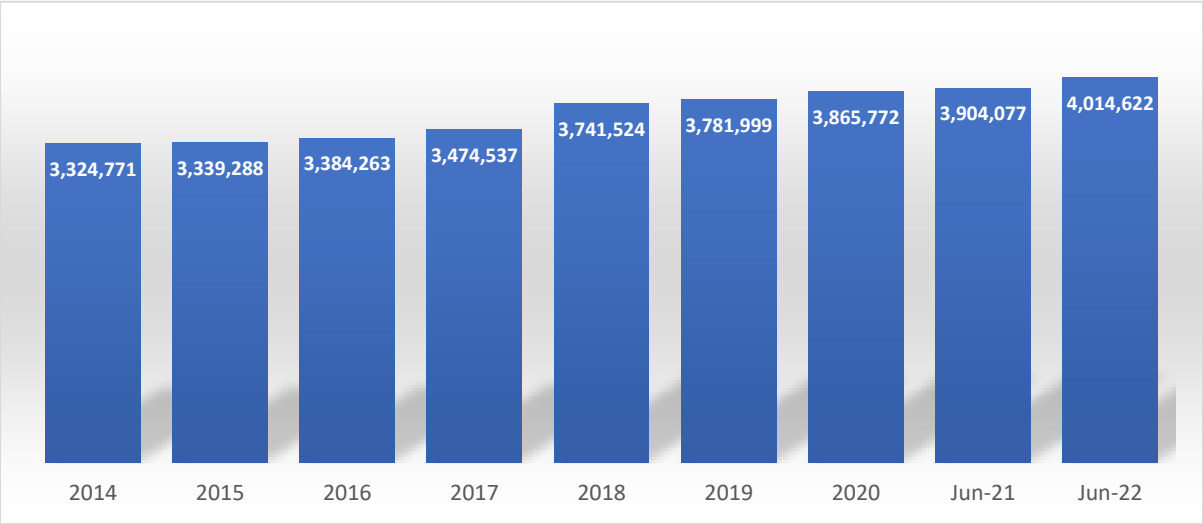


Fig. 1: Annual increases of free and purchased needles across all NEP outlets, 2014-June 2022

In summary the 2.8% increase in needle distribution across the country continues the programme's recent trend in modest but consistent annual increases (*Figure 1*).

2. Distribution of needles by dedicated needle exchanges (NEXs)

This section details the distribution of needles from the NZNEP's 21 dedicated needle exchange services (NEXs).[2] The NEXs, including the West Coast Mobile service, are clustered by Regions with one NEX in each Region acting as the regional hub. The clusters exist as five independent 'regional trusts' and are located in the same respective geographical areas as the four Health Areas. The latter divide the country into the Northern, Midlands, Central, and Southern (the South Island) Areas. The five trusts are: ADIO, MIDLANDS, DHDP and DISC. TNET (comprising the Timaru and Ashburton NEXs) also in the Southern Region.

Percentage distribution of needles over the period by each of the five regional trusts is shown below in *Figure* 2 and in *Table 2*. Pharmacies and alternate outlets are excluded. Data in *Table 2* show individual NEX distribution, as well as clustered per regional trust. In *Table* 2 the percentage figures show each trust's proportion of needles distributed by the NZNEP'S dedicated NEX services (including mobile), which is also represented in *Figure 2*. The bulk of distribution is shared by the four larger trusts, in order: DISC 38.1%; ADIO 22.8, DHDP 21.5%; MIDLANDS 14%. The smaller Timaru-based trust comprising the Timaru and Ashburton NEXs accounts for 3.6% of total trusts' needle distribution. DISC's Rodger Wright Centre in Christchurch is the largest distributor (647,813), while ADIO's WELLSFORD NEX is the smallest NEX outlet in terms of distributed needles (21,329).

[2] Distribution from DHDP Masterton's mobile service and the Online Shop are generally not described separately in this report. The latter was initiated in May 2020 and licenced out of Christchurch's RWC, before receiving its own licence in 2021 and now being run directly by NEST. It distributes around the country and therefore its figures a not allocated to a single region.

2.1 Distribution of needles by regional trust and respective NEXs

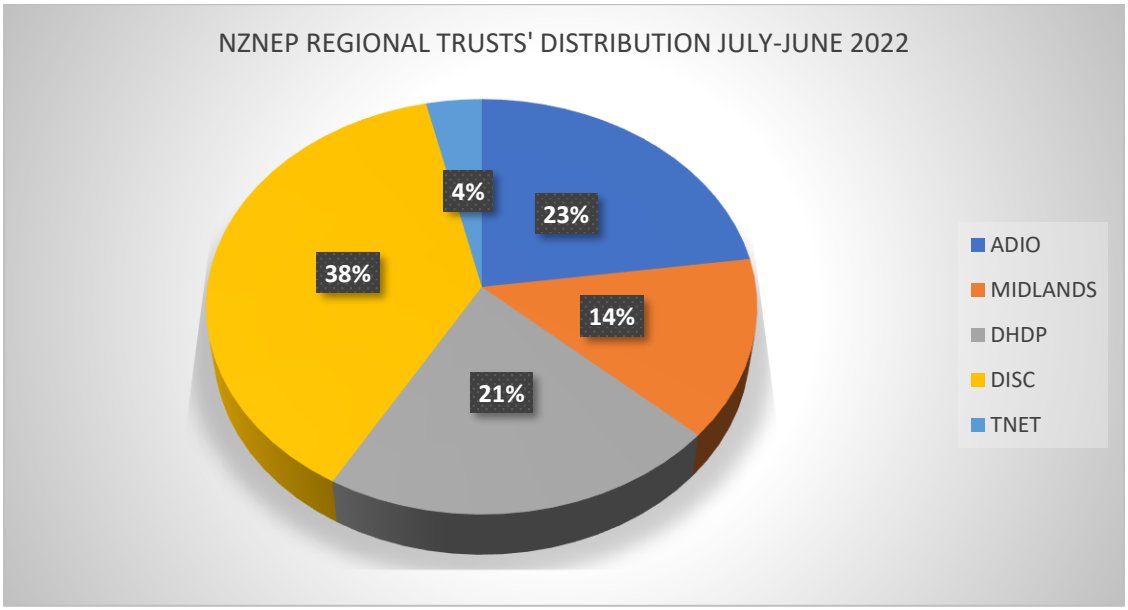


Fig. 2: Regional Trusts' distribution as % of total trusts' needles, July-June 2022

Table 2: Distribution of free and purchased needles by NZNEP regional trusts, with percentage per region, July-June 2022

DHB Regions	Regions and Trust	2021/2022	Combined NEX total & as % of all trusts
Northern	**Northern - ADIO**		756,387 (22.8%)
Auckland, Northland	ADIO AUCKLAND	562,452	
	ADIO SOUTH AUCKLAND	110,651	
	ADIO WELLSFORD	21,329	
	ADIO WHANGAREI	61,955	
Midlands	**Midlands**		463,168 (14%)
Bay of Plenty, Gisborne, Rotorua,	NEMMS MT MAUNGANUI	54,929	
Ruapehu, Taranaki, Taupo,	NETS NEW PLYMOUTH	160,227	
Tauranga, Waikato	NEWS HAMILTON	192,226	
	RANE ROTORUA	55,786	
Central	**Central – DHDP**		714,693 (21.5%)
Hawkes Bay, Hutt Valley, Manawatu,	DP NAPIER	145,097	
Wairarapa, Whanganui,	DP PALM. NORTH	219,780	
Wellington	DP WAIRARAPA	35,332	
	DP WELLINGTON	246,599	
	DP WHANGANUI	67,885	
Southern 1	**Southern 1 – DISC**		1,264,649 (38.1%)
Nelson/Marlborough, Canterbury,	DIVO DUNEDIN	214,905	
Otago, Southland,	NICHE NELSON	124,627	
West Coast	RWC CHRISTCHURCH	647,813	
	RWC NB CHRISTCHURCH	146,399	
	SHRP INVERCARGILL	91,811	
	WEST COAST MOBILE	39,094	
Southern 2	**Southern 2 - TNET**		118,306 (3.6%)
Canterbury,	NEAR ASHBURTON	34,732	
South Canterbury	NEXT TIMARU	83,574	
			3,317,203

2.2 Variation in NEX distribution.

In *Figure 3* the variation in NEX distribution of needles between 2020-2021 and 2021-2022 is described, with a percentage difference shown as a distribution increase or decrease. For example, East Auckland (ADIO East St) recorded an increase of 6.4% in overall distribution compared with the preceding period, while South Auckland (ADIO STH) provided ADIO's only reduction in distribution (-0.8%) over this period. Along with the remaining ADIO NEXs, the Midlands cluster generally reported increases in distribution, with New Plymouth recording the programme's largest (11%), with only Mt. Maunganui (-2.7%) recording a decrease.

Interestingly, *Figure 3* shows that most of the reported reductions in distribution occurred from the Central region down, with – remarkably – all South Island NEXs recording reduced distribution. These included the programme's largest, i.e. -27.7% in the West Coast's mobile service and -19.9% at TNET's Timaru NEX. Reasons for these patterns include the seeming increase in the consumption of methamphetamine, particularly in the upper half of the North Island, potentially the impact of COVID on client behavior, as well as the second national lockdown, and unique events in the South. Most notably regarding the latter was the unexpected death of the Nelson manager, Chris Brough, who was responsible for the West Coast service. Chris's un-signaled death highlights the programme's vulnerability to relying on a small pool of uniquely qualified peer staff with lived experience of injecting, a cornerstone of the programme's ability to engage with its clients.

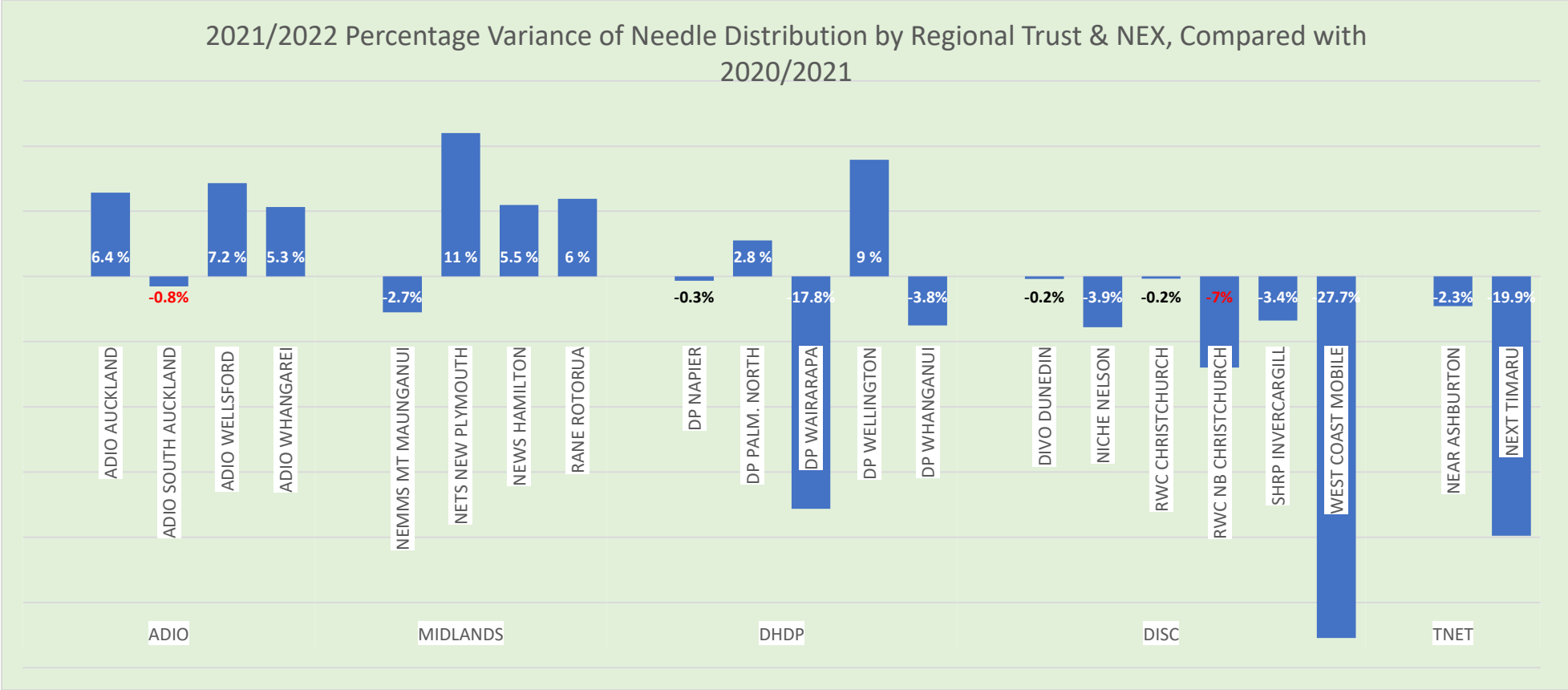


Fig. 3: July-June 2022 percentage needle distribution variance, by Regional Trust and NEXs, compared with 2020-2021

3. Pharmacies and alternate outlets

This section of the report describes pharmacy and alternate outlet distribution data. Despite these outlets consistently distributing approximately only 15% of all needles (16% during the present reporting period), they nonetheless represent an important component of the programme, particularly in areas where there is no access to dedicated NZNEP outlets.

3.1 Numbers of pharmacies and alternate outlets

Trends from previous years continued, albeit marginally. There was a net increase over the reporting period of 1 pharmacy, compared with the preceding 12-months. Details are shown below in *Table 3*, with a total of 202 non-NEX outlets overall.

Table 3: Numbers, types and variances of pharmacy and alternate outlets, at June 2021

Outlet type	Numbers	Joined NZNEP	Left NZNEP	Closed
Pharmacy	196	6	1	4
NZPC	2			
Sexual Health Clinic	3			1 (temporary)
Hospital dispensary	1			

3.2 Pharmacy and alternate outlets serving regional trusts' areas

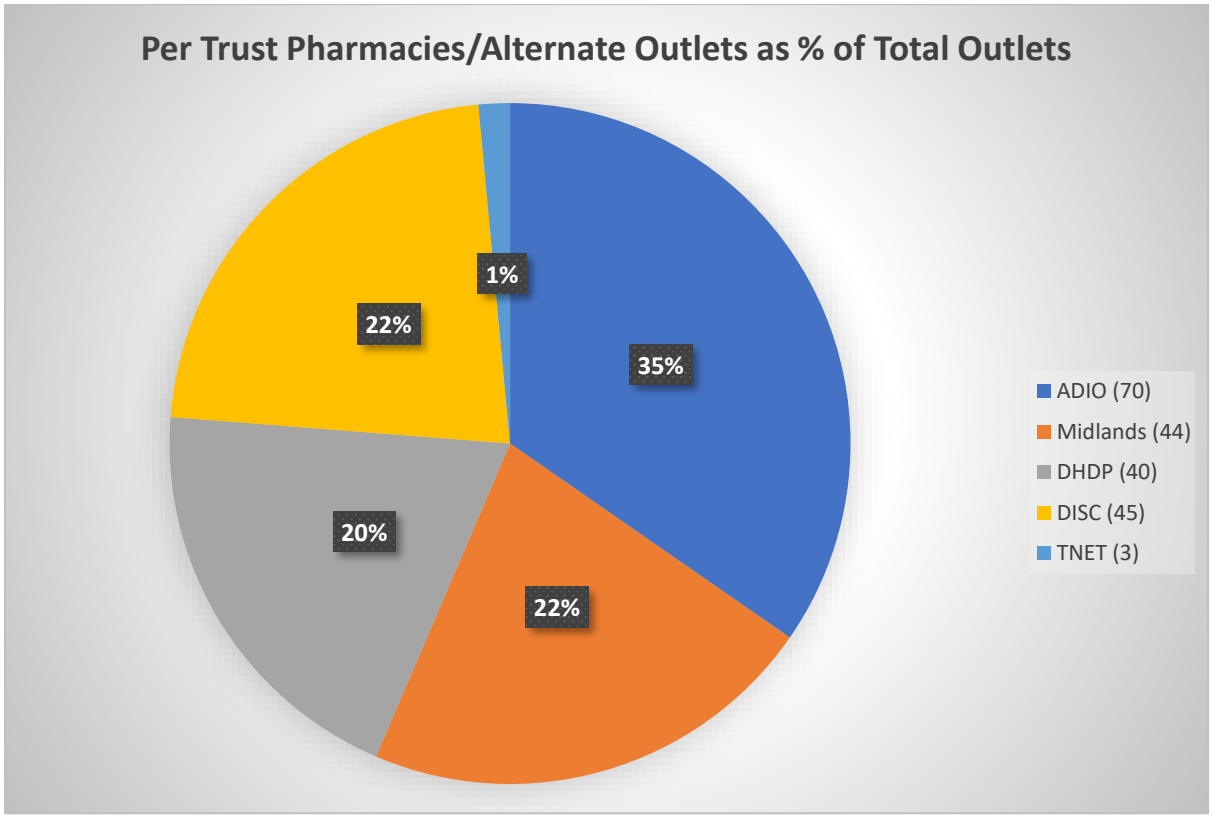


Fig. 4: Numbers of pharmacy/alternate outlets per trust region at June 2022, as a percentage of all non-NEX outlets

Figure 4 shows the distribution of the programme's 202 non-NEX outlets across the regions as defined by each NEP trust. The largest number and proportion of these outlets (i.e. 70 outlets or 34.6% of all

pharmacies and alternates) is located in the Northland / Auckland regions, covered by the four ADIO NEXs. The regions covered by the four Midlands (21.8%/n=44 outlets) and six DISC (22.2%/n=45 outlets) NEXs are also served by similar numbers of these pharmacies and alternate outlets, while the region covered by the TNET dedicated NEXS (Timaru and Ashburton) is served by only three pharmacies comprising, 1.5% of the total non-NEX outlets.

3.3 Top 10 pharmacies and alternate outlets

Table 4 below lists the programme's top 10 pharmacies and alternate outlets for needle distribution for the July-June 2022 period, showing comparisons with 2021.

Table 4: Top 10 non-NEX outlets July-June 2022 ranked; purchased, free and combined needle distribution vs 2021

Rank 2021	Rank 2022	Region	Name	Free	Purchased	Combined 2022	Combined 2021	Variance %
2	1	**Christchurch**	**Eastgate Unichem pharmacy**	37,200	2,600	39,800	34,204	16%
3	2	**Omararu**	**Oamaru Pharmacy**	17,805	4,450	22,255	26,573	-16%
5	3	**Wellington**	**Avalon Pharmacy**	20,580	1,450	22,030	21,250	4%
8	4	**Blenheim**	**Poswillo Pharmacy**	21,314	600	21,914	17,432	26%
21	5	**Auckland**	**Medi-Centre Pharmacy**	19,346	1,050	20,396	9,786	108%
50	6	**Taupo**	**Pharmacy 81 on Heu Heu**	18,729	1,050	19,779	2,640	649%
38	7	**Hastings**	**Russell St Pharmacy**	18,714	200	18,914	5,699	232%
4	8	**Tauranga**	**NZPC Tauranga**	13,398	5,500	18,898	23,541	-20%
1	9	**Christchurch**	**Ferry Road Pharmacy**	18,700	50	18,750	41,350	-55%
6	10	**Auckland**	**Roskill Healthcare Pharmacy**	16,653	1,050	17,703	21,245	-17%
Totals				202,439	18,000	220,439	203,720	8%

As with the preceding reporting period, four of the top ten outlets listed in *Table 4* are in the South Island region also covered by DISC NEXs. These include three of the country's top four distributing pharmacies, located in Christchurch (#1) and Oamaru (#2) and Blenheim (#4), respectively. Of interest is Ferry Road (Christchurch, #9), which saw a significant reduction in distribution, dropping it from being the busiest pharmacy in the previous reporting period. The region covered by the Midlands' NEXs is also served by three of the top ten pharmacies (two of which had the greatest increase in distribution relevant to the top 10), including the Aotearoa Sex Workers' Collective Tauranga outlet. The latter is the only alternate outlet in the top 10 non-NEX outlets nationally. Additionally, while NZPC's distribution shows a 20% drop for the current reporting period, the service was required to move during this time and this may have impacted on distribution, despite the move not being seen as especially impactful on distribution by NZPC personnel (personal communication between GN and Dame Catherine Healy, NZPC National Coordinator, September 22nd 2022). Completing this list are two Auckland pharmacies (in the region also served by 2 ADIO NEXs) and the region serviced by the DHDP NEXs, with a single pharmacy in the top 10 (#3).

Three of the top five ranked pharmacies for this reporting period were among the top five for the preceding 12-months, with the 3rd ranked Avalon Pharmacy only joining the programme during 2020. The lower portion of the table is more volatile, for example rankings 5, 6, and 7 were previously ranked 21, 50 and 38 respectively in the preceding period. This suggests both relative stability for the most popular pharmacies but also the potential for significant changes in client need in some areas, e.g. where a change in an area's client base may promote an increase or decrease in distribution, or where changes in drug trends in terms of availability or price may alter the practices of current clients. Drug availability, or perhaps more accurately, specific drugs used by an outlet's clients, is a particularly significant factor for some outlets. As with the previous period, the most obvious example of this in *table 4* is Tauranga's NZPC outlet, where 30% of equipment distributed is purchased and is likely

associated with methamphetamine injecting. Interestingly, the other two big-moving pharmacies (both in Midlands) distributed only a small proportion of purchased equipment). This volatility also provides insight into drug use trends around the country.

Nonetheless, as the previous report also noted, anecdote suggests that while some pharmacies may distribute significant amounts of equipment, it should not be assumed that this implies clients are completely satisfied with that outlet's service. Instead, this may be due to limited access, where the pharmacy may be the sole outlet in a given area, thereby offering little client choice despite indifferent service.

3.4 Non-NEX outlet free and purchased needles

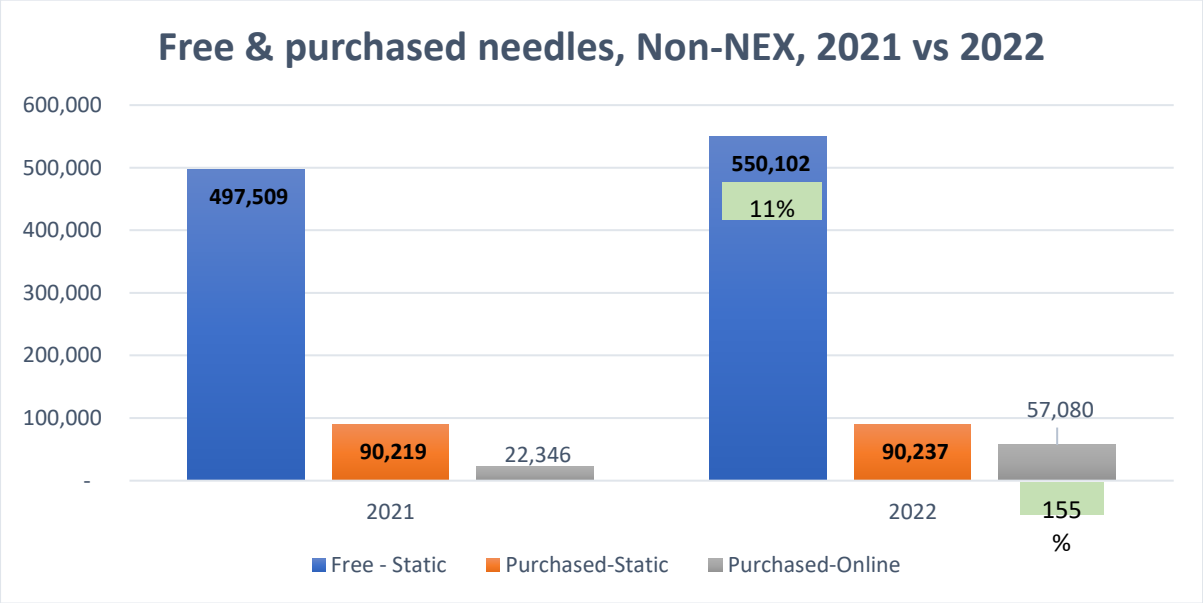


Fig. 5: Comparing distribution of needles by all non-NEX outlets, to June 2022 vs 2021

As with the programme's NEXs, the majority of needles distributed by non-NEX outlets are free (550,102 – up from the last period's 81.6% to 85.9%), with this representing a 10.6% increase in compared with the previous year. By contrast, as noted above, equipment purchased from pharmacies and alternate outlets was effectively static between the two periods (*Figure 5*). Of significance is the 155% increase in sales through the online shop. As with many changes in distribution over the reporting period it is likely that COVID restrictions have influenced client behaviours. Having noted this, the shop's relatively recent implementation may also be playing a part as some clients discover its advantages

4. Combined (free and purchased) NEX and non-NEX needle distribution for July 2020-June 2021

In *Figure 6* below, needle distribution for all outlets by regional trust area is shown. Pharmacy and Alternate outlet needle distribution is also described as a percentage of the total needle distribution for each region serviced by the five trusts.

4.1 Interactions between NEX and non-NEX (pharmacies and alternate) outlets regarding needle distribution

The number of pharmacies and alternate outlets also servicing clients in each area covered by regional trusts could impact on equipment distributed by dedicated exchanges (NEXs). As noted in previous reports, comparing NEX and non-NEX outlet numbers per trust region suggested that the more non-NEX outlets there were per region relative to dedicated NEX's, the greater share of distribution these outlets had. Previously we carried out a statistical test to examine the relationship between regions' NEX and non-NEX outlet numbers, regarding outlets' share of distribution. While our test result was not statistically significant it was very close, indicating that the number of non-NEX outlets per trust region *probably* impacted on a trust's distribution. As pharmacy / alternate outlet numbers have changed little over the intervening time between reports it is likely this trend still remains.

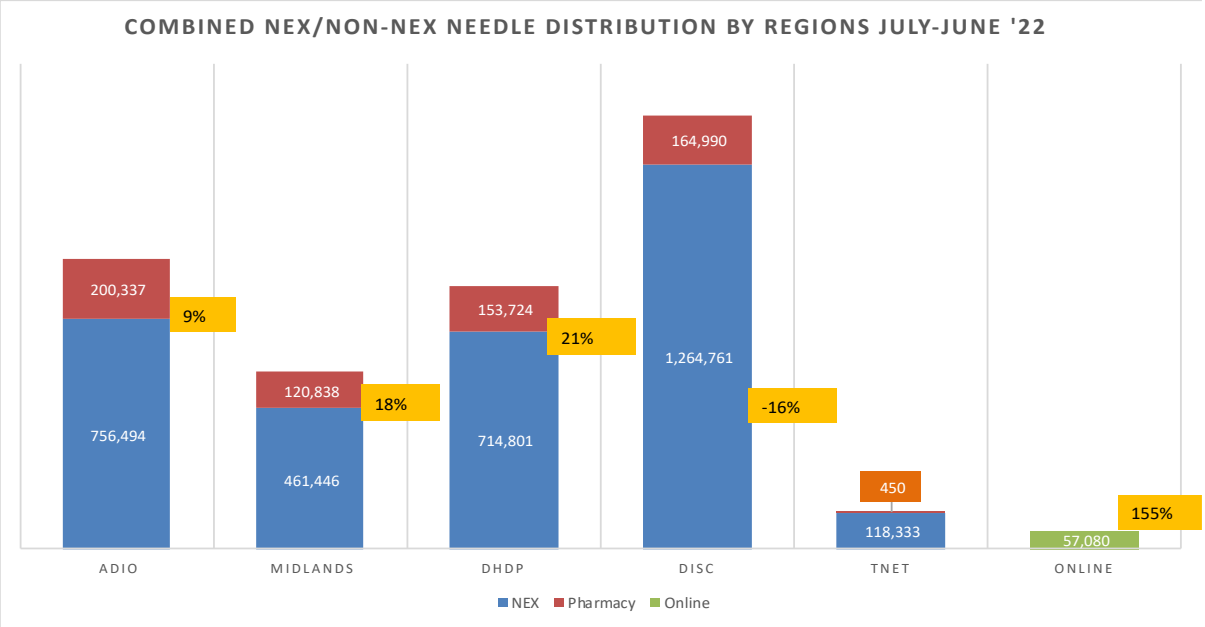


Fig. 6: Combined NEX/Pharm/Alt needle distribution by regional trust area for July-June 22

However, reiterating comments from the previous reports, as desirable as ready access to other outlets may be, where there are no dedicated NEXs and access to equipment relies on pharmacies, provision of harm reduction resources other than equipment is limited, a situation exacerbated by the higher cost of pharmacy-distributed equipment, which further reduces distribution. The advantages of dedicated NEXs servicing as many clients as possible are underscored with the possibility that other health services may be extended to more NEXs in the future (currently only three — Auckland, East St.; the Community Clinic associated with Christchurch's Rodger Wright Centre; and the Dunedin NEX (DIVO), having a one-day a week health clinic staffed by the programme's only medical doctor — provide direct access to clinical staff).

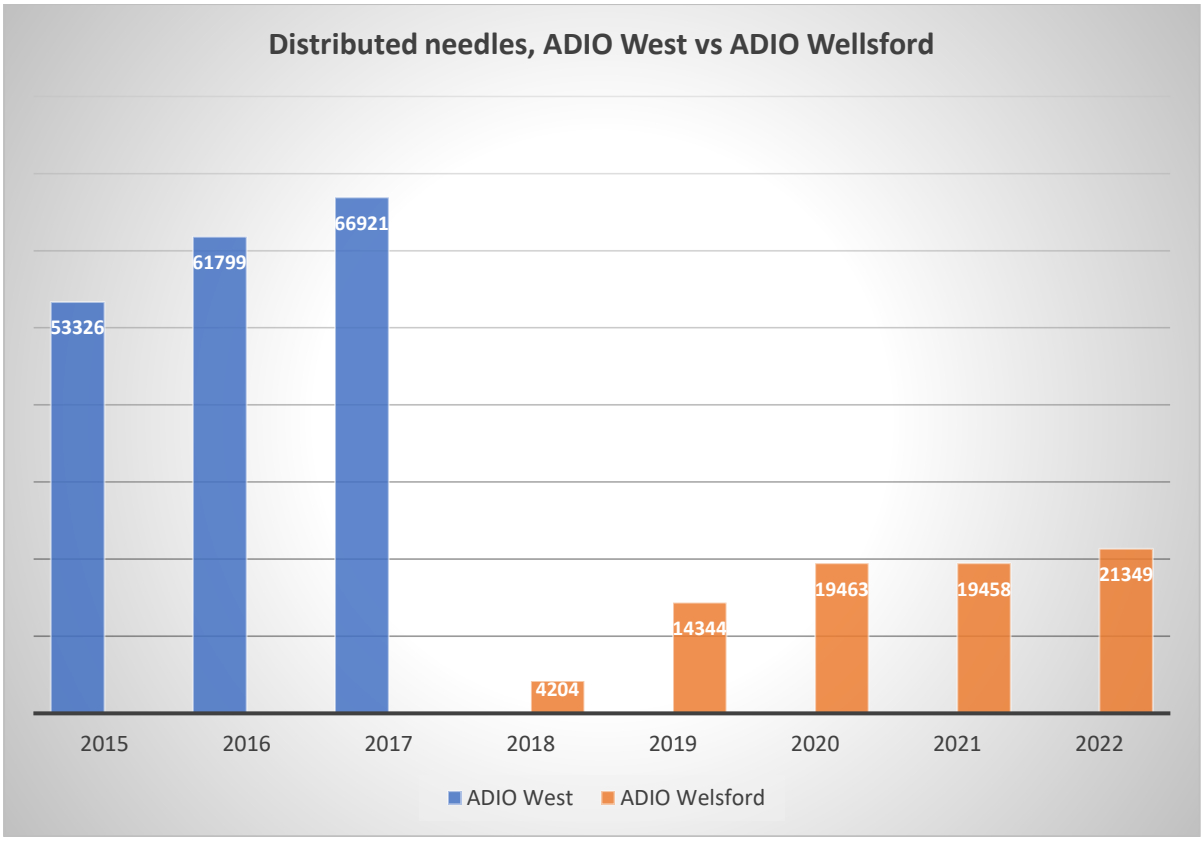


Fig. 7: Comparing distribution of free needles, ADIO West vs Wellsford (2015-2022)

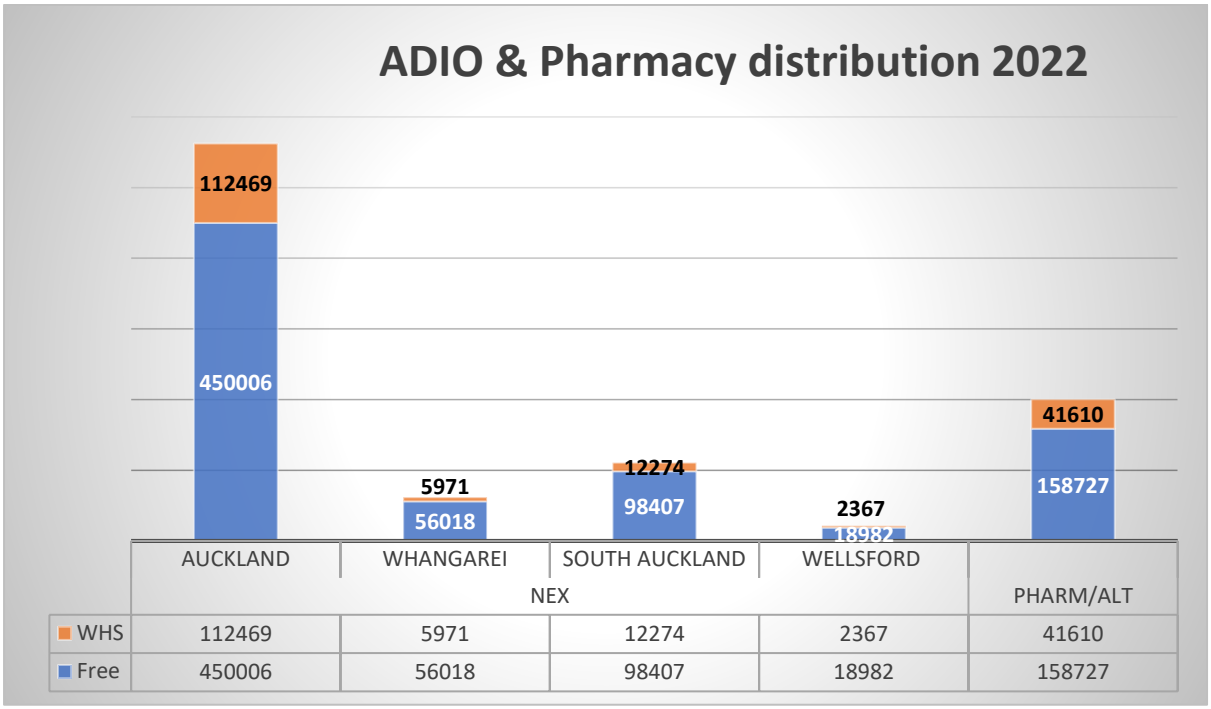
For this reason, ensuring that NZ's PWID have the greatest access possible to dedicated NEXs should be considered a central strategy of the NZNEP. In the case of Auckland, following the disestablishment of the ADIO West NEX in Henderson, there are effectively only two NEXs for the Auckland city and suburbs' population. Moreover, while the Wellsford NEX has been established for four full years, as the data in *Figure 7* demonstrate,[3] due to it being some distance from Auckland itself, it is unlikely to ever service the same number of clients as the former ADIO West, with the most recent figures suggesting Wellsford distribution has effectively plateaued. Consequently, as discussed in previous reports, it is likely that at present Auckland is underserved by dedicated NEX access in the areas captured by Auckland city and suburbs. Given the preference that PWID consistently demonstrate for their needs being met by dedicated NEXs, consideration should perhaps be given to establishing or re-establishing a third NEX in the Auckland city area.

4.2 Breakdown of needle distribution by regional trust areas

In *section 4.2* data for needle distribution by regional trusts are displayed. *Figures 8-12* show distribution for NEXs and non-NEX outlets (pharmacies and alternate outlets) by free and purchased equipment. Data are generally self-explanatory and require little interpretation, offering a snapshot of distribution per-trust region for all outlets.

[3] In Figure 7 data for ADIO West and Wellsford are partial for 2017 and 2018, with the former closed in September 2017 and the latter opened in June 2018

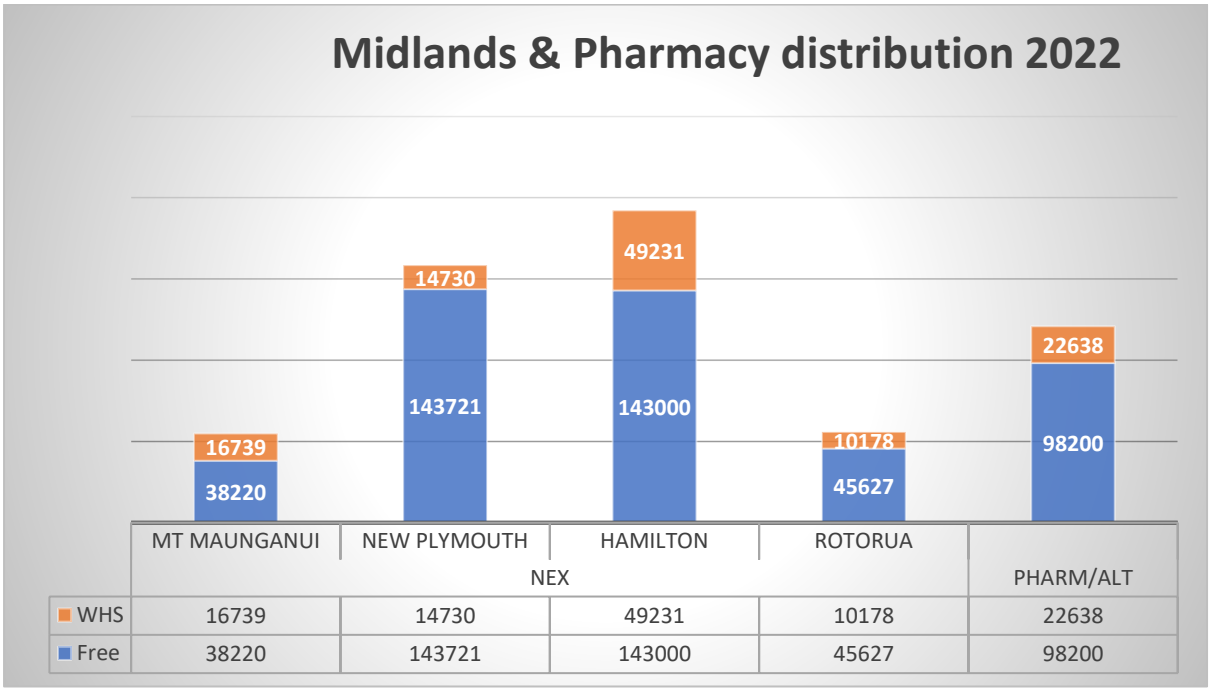
4.2.1 ADIO NEXs and Pharmacy / Alternate outlets



	NEX				PHARM/ALT
	AUCKLAND	WHANGAREI	SOUTH AUCKLAND	WELLSFORD	
WHS	112469	5971	12274	2367	41610
Free	450006	56018	98407	18982	158727

Fig. 8: ADIO and related pharmacy / alternative outlets' combined distribution, July-June 2022

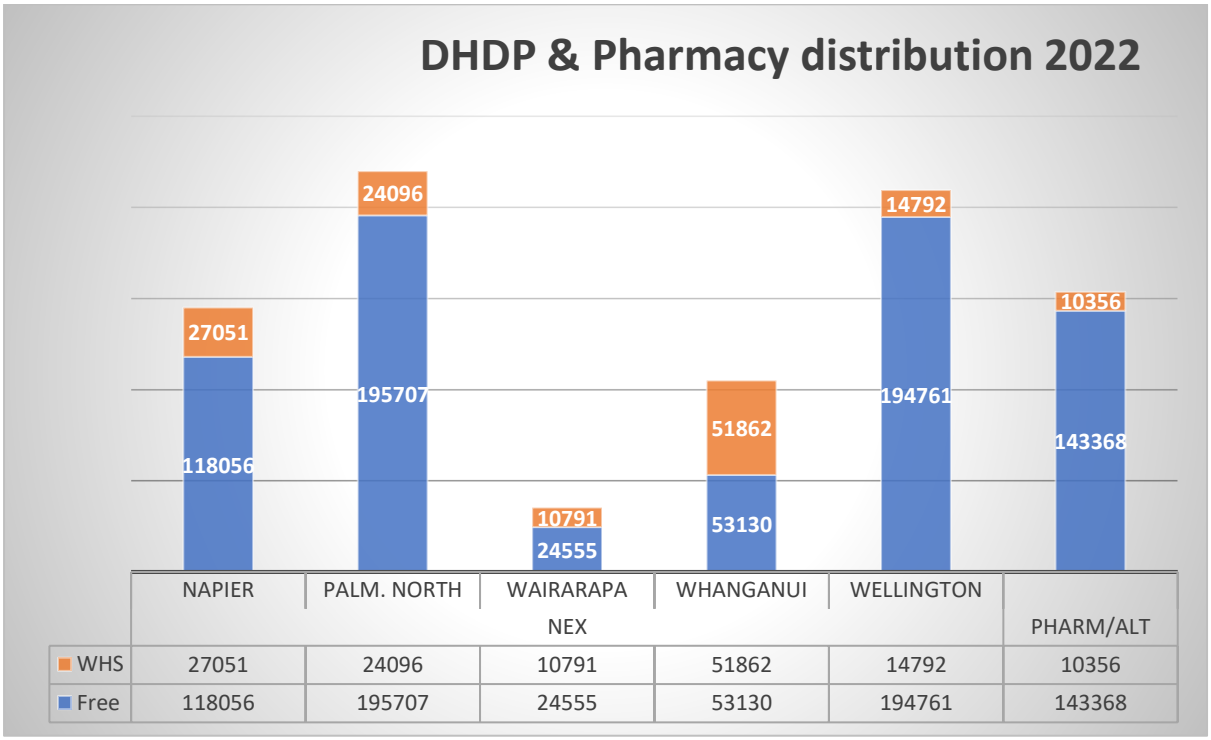
4.2.2 Midlands NEXs and Pharmacy / Alternate outlets



	NEX				PHARM/ALT
	MT MAUNGANUI	NEW PLYMOUTH	HAMILTON	ROTORUA	
WHS	16739	14730	49231	10178	22638
Free	38220	143721	143000	45627	98200

Fig. 9: Midlands and related pharmacy / alternative outlets' combined distribution, July-June 2022

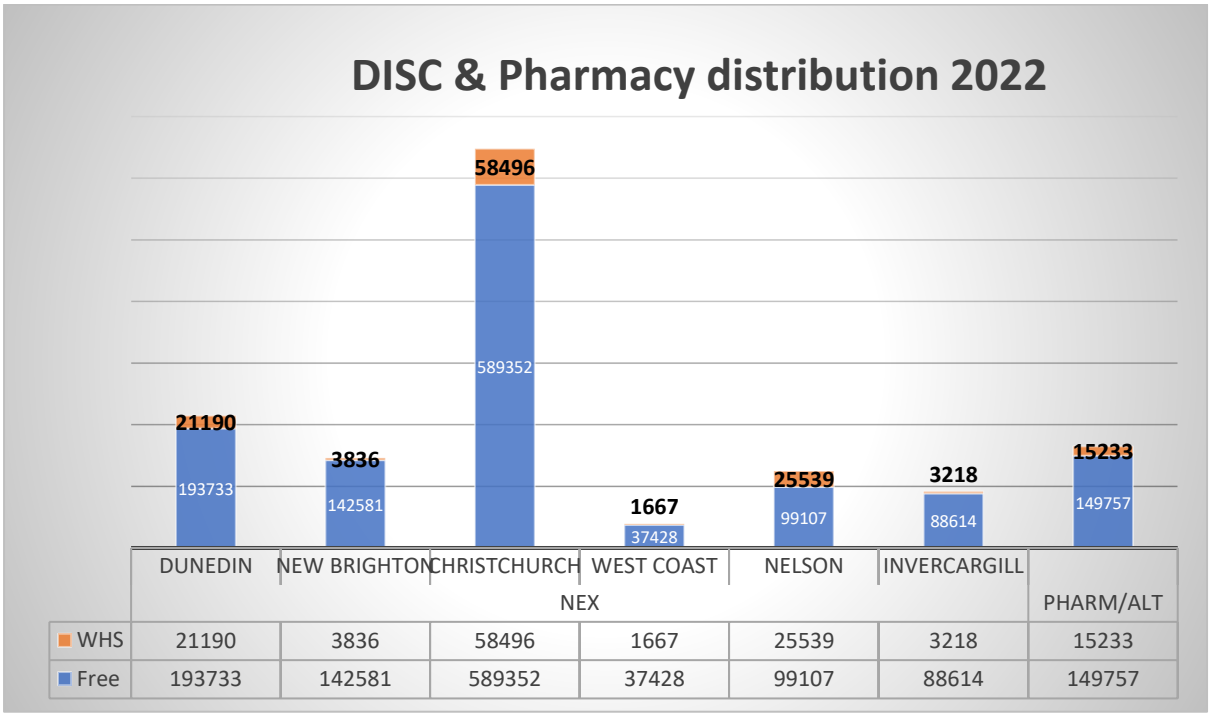
4.2.3 DHDP NEXs and Pharmacy / Alternate outlets



	NAPIER	PALM. NORTH	WAIRARAPA	WHANGANUI	WELLINGTON	PHARM/ALT
	NEX					
WHS	27051	24096	10791	51862	14792	10356
Free	118056	195707	24555	53130	194761	143368

Fig. 10: DHDP and related pharmacy / alternative outlets' combined distribution, July-June 2022

4.2.4 DISC NEXs and Pharmacy / Alternate outlets



	DUNEDIN	NEW BRIGHTON	CHRISTCHURCH	WEST COAST	NELSON	INVERCARGILL	PHARM/ALT
	NEX						
WHS	21190	3836	58496	1667	25539	3218	15233
Free	193733	142581	589352	37428	99107	88614	149757

Fig. 11: DISC and related pharmacy / alternative outlets' combined distribution, July-June 2022

4.2.5 TNET NEXs and Pharmacy / Alternate outlets

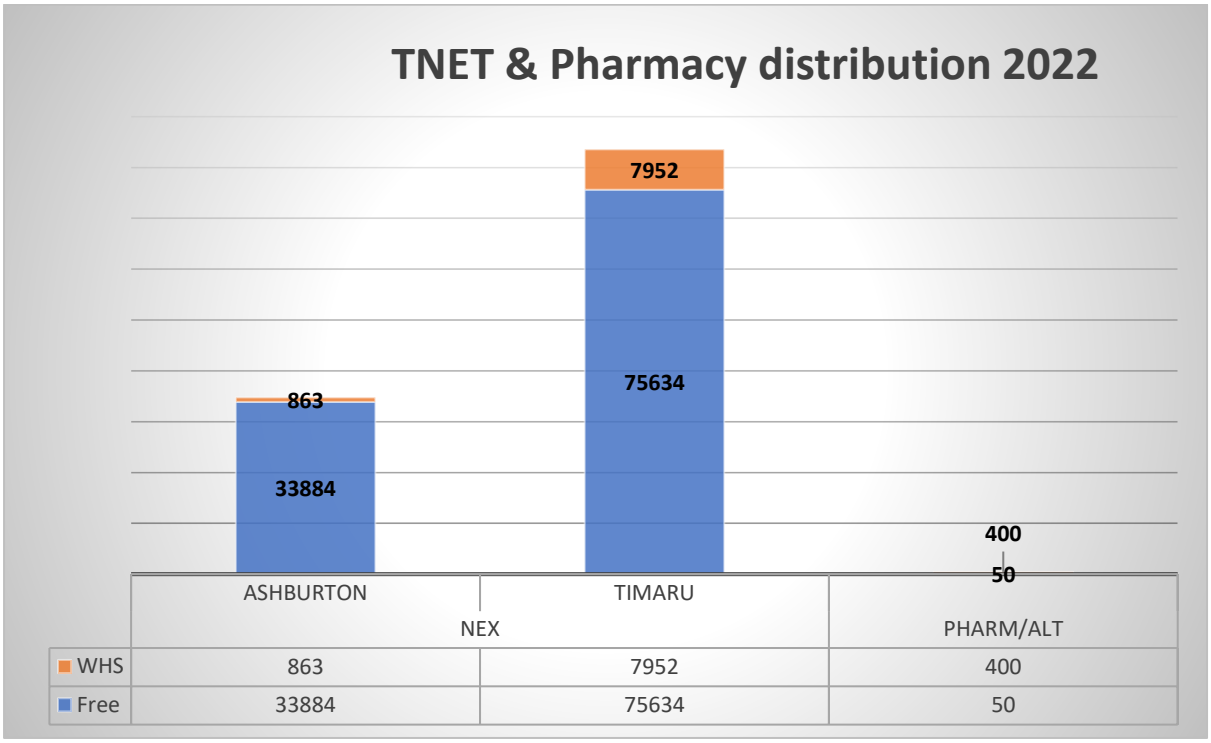


Fig. 12: TNET (Timaru and Ashburton) and related pharmacy / alternative outlets' combined distribution, July-June 2022

5. Distribution of needles by electronic dispenser (ED)

As with the preceding two reports, NEXs supplied data on the contents of their ED packs, which may vary from year to year. This has allowed a more accurate assessment of total purchased equipment data.

Three quarters (n=15) of the 20 stand-alone NEXs have EDs, although these are not equally distributed across the regional trust areas, i.e. ADIO (1), MIDLANDS (3), DHDP (5), DISC (4) and Timaru (1). Further, the Invercargill NEX's (SHRP) ED machine has not been operational during this reporting period, leaving effectively 14 EDs across the programme.

Additionally, all equipment available by ED must be purchased and typically costs more than when purchasing equipment over the counter. EDs also include equipment normally available free over the counter from staffed outlets.

5.1 Comparing ED needle distribution with overall purchased needles

Below, *Table 5* lists needles purchased from the 14 functioning EDs, along with their proportion of all purchased needles from their respective NEXs (excludes free needles), as well as the hours each NEX is open.

- Overall, 41% (184987) of purchased needles from these NEXs are purchased via their EDs. This is 5% increase overall over the preceding reporting period.

- Additionally, the current reporting period generally saw increases in distribution from EDs, with the only exception being a 7% reduction at Rotorua. Significant ED distribution increases occurred at Whanganui (19%), Wairarapa (14%), Napier and New Plymouth (11% each) and Dunedin and Hamilton (9% each). Explanations for these increases are speculative, however, it is possible that COVID restrictions and concerns played a part.

Finally, ED-purchased needles comprise 4.6% of all distributed needles (NEXs and Pharmacies/alternate outlets) and represent 5.5% of all needles distributed by NEXs.

Table 5: ED distribution of needles (disaggregated packs) including as % of NEXs' total distribution, July-June 2022

NEXs	all Purchased needles	ED Needles	ED needles as % of all purchased	Weekly Hours
EAST ST, AK	112469	54631	48.57%	66
NEW PLYMOUTH	14730	4796	32.56%	49
HAMILTON	49231	23353	47.44%	49
ROTORUA	10178	6906	67.85%	34
Mt Maunganui	16739	3221	19.24%	40
NAPIER	27051	18948	70.05%	45
PALM. NORTH	24096	9499	39.42%	49
WAIRARAPA	10791	5873	54.42%	30
WELLINGTON	51862	22137	42.68%	56.5
WHANGANUI	14792	7908	53.46%	40
NELSON	25539	9862	38.62%	41.5
CHRISTCHURCH	58496	7651	13.08%	86
DUNEDIN	21190	8097	38.21%	53
TIMARU	7952	2105	26.47%	22
Totals	445116	184987	41.56%	
Median			41%	46
Average			42%	48.6

5.2 Sale of needles by ED and hours of operation

The preceding report discussed ED hours and the implications of these for distribution. With the exception of Whanganui, the hours are unchanged. Therefore, for general comment the reader is referred to the 2020-21 report. However, of interest for the current period is the 14-hour reduction in operation hours in Whanganui, and 19% increase in equipment distribution through its ED. This tends to support the suggestion that ED distribution is associated with outlet opening hours.

6. Availability of needles per PWID

One important indicator of the efficacy of needle and syringe programmes is the level of equipment coverage, particularly for sterile needles. An accepted measure of this is the number of needles used by individual PWID per year. Coverage is defined as 'high' by UNAIDS if distribution exceeds 200 needles/syringes per PWID per year, although WHO has set a target of 300/PWID/year by 2030 (UNAIDS, 2020).

6.1 Estimated needle coverage for New Zealand PWID

Table 6: Annual needles distribution per PWID clients, per DHB region, July-June 22

Regions	DHB Regions	Resident Population ≥ 15 Years (Regional population as %)	Estimated Injecting Population (0.3-0.45%)	Needles/PWID/Year (% national distribution) 2022
Northern	Auckland, Northland	1561458 (38%)	4684-7027	140-210 (24.5%)
Midlands	Bay of Plenty, Gisborne, Rotorua, Ruapehu, Taranaki, Taupo, Tauranga, Waikato	797339 (19%)	2392-3588	162-243 (14.5%)
Central	Hawkes Bay, Hutt Valley, Manawatu, Wairarapa, Whanganui, Wellington	822256 (20%)	2467-3700	231-347 (21.3%)
Southern	Nelson/Marlborough, Canterbury, South Canterbury, Otago, Southland, West Coast	971757 (23%)	2915-4373	364-546 (39.7%)
	Total	4152810	12458-18688	215-322 (100%)

Providing an accurate estimate of needle coverage is a difficult exercise due to the illegality of injecting drug use. Producing a NZ estimate is further complicated by the lack of accurate data on numbers of NZ PWID accessing NZNEP outlets, which protect clients' anonymity. Currently estimates are based on national survey data from 2013 (Noller & Henderson, 2014) and a more recent on-going scoping exercise (Noller, 2020).

Consequently, the estimates listed in *Table 6* and *Figure 13* below (black lines show 200 and 300 level coverage for the averaged estimate of PWID per region) rely in part on a previously used NZ estimated range of 0.3-0.45% of those aged 15 years and over.[4] *Table 6* figures are derived from dividing estimated injecting numbers (PWID) in each region into that region's total population (e.g. the Northern Region's 4684-7027 PWID average 140-210 needles each, per annum). This gives an estimated range of PWID numbers for the four NZ Health regions, which generally map onto regional trust areas, with the exception of the TNET cluster, which in *Table 6* and *Figure 13* is subsumed in the Southern region for the purpose of this analysis. The table also includes distribution data from pharmacies and alternate outlets.

[4] *Figure 13* appears different from that of the preceding report due to using *averaged* numbers of needles per PWID per year, rather than the 2020 report's *lowest estimate*.

While the calculation is not optimal, it does indicate some interesting patterns. There is a range of estimated coverage, e.g. the low range is from 140 needles/PWID/year (Northern) to 347 needles/PWID/year in the Southern region. Given that significant actual differences in equipment access for PWID across regions would be unlikely, other explanations are required,[5] with the most obvious being that the prevalence of injecting varies across regions.

Two interacting variables potentially explaining these variances are differing population make-up across regions and differing routes of drug administration. Regarding population, while Auckland is clearly the most populous region its proportionately large Asian (28% in 2018) and Pacifika (15.5% in 2018) populations (RIMU, 2020) have the potential effect of reducing PWID numbers as both these ethnicities have lower rates of injecting than NZ Europeans (Ministry of Health, 2010). Interestingly, according to Ministry of Health data (2021a,c), both Auckland and Waitematā DHB regions (combined population 1,122,760) have a lower proportion of Māori (8.2% and 10.2% respectively) compared with the national average (16.6%). This is also relevant to explaining PWID prevalence as Māori have higher rates of injecting, along with NZ Europeans (MoH, 2010). By contrast NZ Europeans predominate in Christchurch (81.2%) compared to Auckland (59.5%; RIMU, 2020) and while Māori (9.8%) have a lower proportion in Christchurch than the national average, their numbers are similar to those in Auckland and Waitematā (MoH, 2021b).

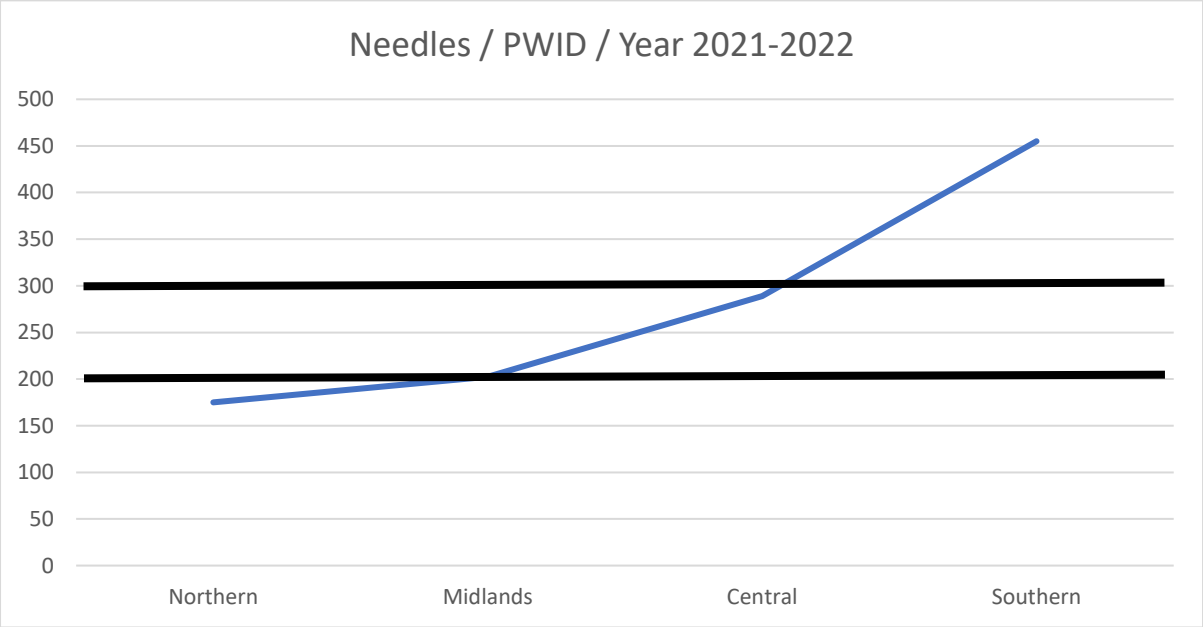


Fig. 13: Benchmarking NZ annual PWID needle consumption (averaged estimates) against WHO levels, by Health Region

Similarly, regarding Auckland, use of potentially injectable drugs and their actual route of administration, appears different to elsewhere in New Zealand. For example, anecdotal reports suggest that there may be a higher incidence of the oral use of injectables in Auckland, including over-the-counter (OTC) and prescribed drugs (Personal communication between GN and Emma Schwartz [Psychiatrist at Waitematā District Health Board]; October 2018). Additionally, it has been suggested that while some drugs, specifically methamphetamine, may be administered by smoking, this option does not exist for others such as opioids (heroin being the exception) In NZ imported heroin is much less prevalent than other opioids, and whilst morphine is commonly converted to heroin in NZ, it requires a specific, more advanced preparation to be suitable for smoking). For this reason, if an area

[5] Understanding why and how these differences might occur is important. Therefore, the following commentary is repeated from the previous report.

has a greater prevalence of a potentially smokable drug, the proportion of those injecting it may potentially be lower (Personal communication between GN and Anna King, Abbvie Pharmaceuticals; September 2021).

Collectively these explanations point to a situation whereby the Northern and especially the Auckland population may have proportionately less PWID than other regions of the country despite its much larger population. As with earlier observations (e.g. section 4.1), taking such factors into consideration is important in informing the validity of programme resourcing strategies such as population-based funding.

7. Other equipment: syringes and filters

While needle distribution remains the primary focus of this report and a benchmark for programme efficacy, the significance of other equipment, notably syringes and filters, should not be ignored.

7.1 Syringe size, types and uses[6]

While the programme provides multiple syringes types, i.e. 1ml, 3ml, 5ml, 10ml, 20ml, 30ml and 50ml, currently only the 3ml syringes are provided free through the '141' scheme.

Different sized syringes may be used for different purposes including injecting different drugs, particularly where these may be small volumes, e.g. the 1ml syringe and needle, and 1ml insulin syringe which comes with needle attached. These may be preferred by methamphetamine injectors, due to the smaller volumes of prepared drugs that are injected. Larger syringes, particularly the 10ml to 50ml sizes may be used for injecting methadone as the volume injected is greater, especially in regions where OST pharmacies are encouraged to dilute methadone doses.

During 2020, in partnership with Auckland University-based researcher, Dr. Rhys Ponton, NEST undertook a study of injecting practices (Ponton et al., 2020). Along with safety issues, equipment use was also examined. *Figure 14* displays proportions of those injecting various drugs (n=101), who reported using specific equipment. It will be seen, for example, that 1ml syringes (22%) and insulin syringes (29%), were used exclusively by methamphetamine injectors. However, over a third of meth injectors (37%) also reported using 3ml syringes, perhaps because these are available free and likely also as a matter of preference. Equipment being available free was an important factor determining equipment choice that was frequently identified by participants in the study, across drug types. By contrast, however, although methadone is a commonly injected drug, most (79%) of the study's methadone injectors preferred purchasing larger syringes (5-20ml) rather than using the free 3ml syringes (15%).

The choice of syringe and the reasons mediating this, for instance the cost of non-subsidised syringes, differential volume of injected drugs (e.g. methadone is a liquid and requires a larger syringe, commonly accompanied by the use of a butterfly to physically manage handling the larger syringe), has implications for harm reduction. For example, NEP clients commonly report significant reuse of larger syringes, which are relatively expensive. This practice is acknowledged anecdotally, with NEP staff describing receiving returned larger syringes with barely visible dosage markings, due to constant reuse (Personal communication between GN and Belinda Read, Regional Manager, TNET, October 2019).

[6] The text for this section is largely unaltered from the previous report. The section has been retained to contextualise the syringe-related data that follows, specifically *Figure 14*.

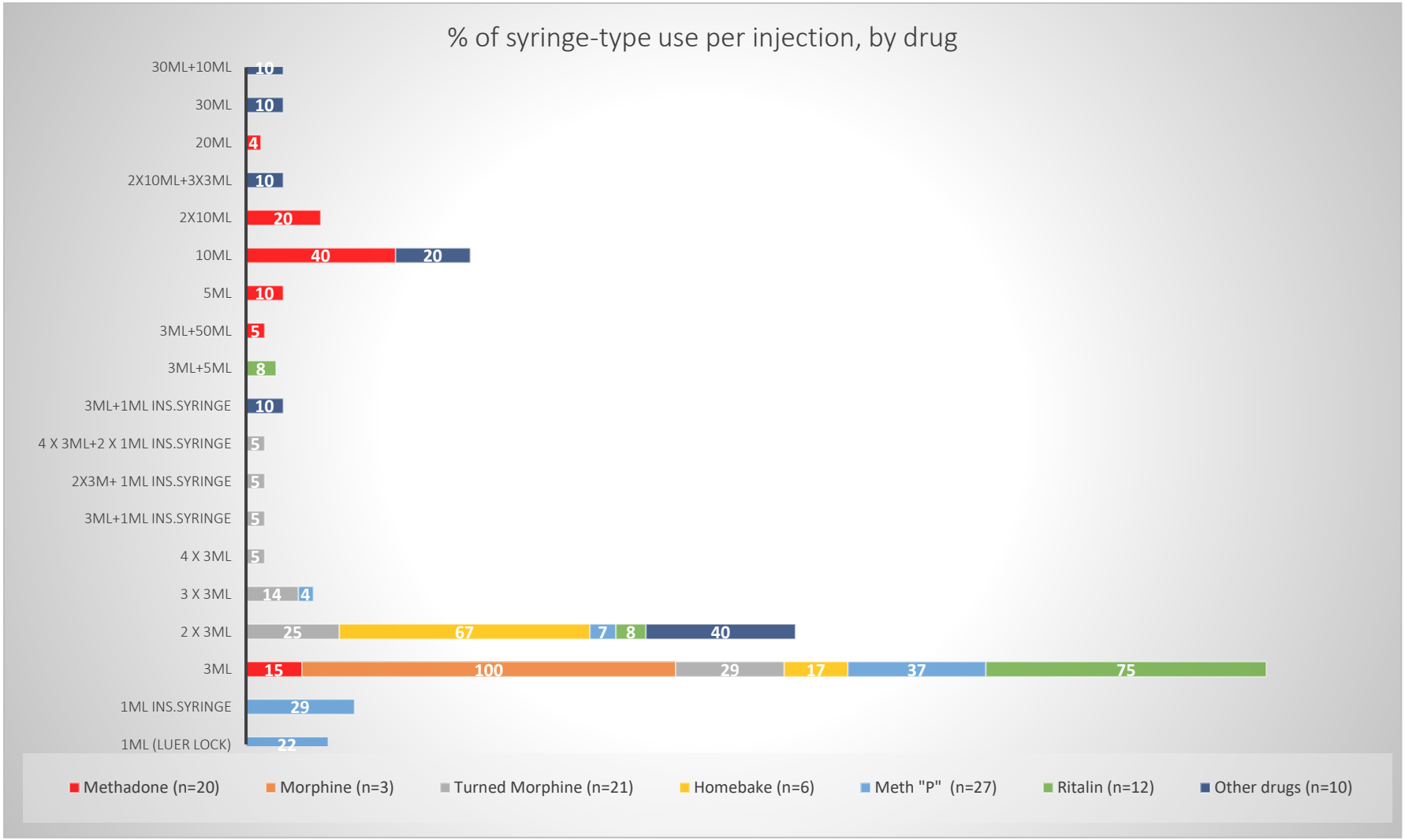


Fig. 14: Percentage of PWID injecting various drugs, reporting use of specific syringes per drug type
Source: Ponton et al., 2020

7.2 Distribution of syringes during 2021-22

Table 7: Distribution of all syringes by outlet type and size during July-June 2022

	Jul-Jun 2022									
	0.5ml	1ml	3ml Free	3ml Purchased	5ml	10ml	20ml	30ml	50ml	Total
NEXs	10,023	265,606	1,726,206	84,201	17,336	55,968	6,658	4,600	1,510	2,172,108
Pharmacy/Alternate	-	23,600	469,360	30,170	6,670	22,600	1,404	809	165	554,778
Online	1,199	13,494		13,275	932	1,906	572	510	173	32,061
	11,222	302,700	2,195,566	127,646	24,938	80,474	8,634	5,919	1,848	2,758,947

*1ml and 1ml insulin syringes combined

Table 7 lists distribution figures of all syringe sizes provided by the NZNEP. These are tabulated by outlet type and syringe size.

An obvious point is that the number of syringes distributed by the programme is far fewer than the number of needles (*Table 1*), respectively 2,758,947 vs 4,014,622, i.e. distributed syringes comprise only 68.7% of distributed needles (a 4% decrease on the previous period). The most likely (and recognised by the programme) explanation for this disparity is that PWID may require more than one needle to successfully inject their drugs ("get their shot away"), as well as using multiple needles to prepare their injections. While a portion of injections involve multiple syringes (e.g. for mixing drugs or when a butterfly needle is used to inject drugs from multiple syringes in a single injection), it is likely that syringe numbers more closely correlate with injection episodes.

2.75 million Syringes vs 4 million Needles

7.3 Syringe distribution by regional trust

On the following page *Table 8* reports syringe distribution by size, across regional trusts. In all cases it is clear that the free 3ml syringes distributed free under the 141-scheme are the largest distributed item. Additionally, generally the purchased 1ml syringes are the second most commonly distributed syringes. This is most obviously the case for the ADIO NEXs, with that trust distributing over 148,000 1ml syringes during July 2020-June 2021, almost 100,000 units more than the next regional trust, Midlands (50,595 units). Two trusts not following this pattern are DHDP and the TNET NEXs (Timaru and Ashburton), whose second most 'popular' syringe was the purchased 3ml. This latter was the third most popular syringe for ADIO, MIDLANDS and DISC, while the 1ml syringe was third most popular for DHDP, and the 10ml syringe third most distributed for TNET. This latter likely reflects greater preference for injected methadone, particularly in Timaru. The least popular syringe was the 50ml for ADIO, MIDLANDS and TNET, and the 0.5ml for DHDP and DISC. There are variations from the previous period with both overall increases (ADIO, 3.6% and MIDLANDS, 2.4%) and decreases (DHDP, -1.9%; DISC -4.3% and TNET, -9.8%) being driven by respective changes in free 3ml and purchased 1ml syringes.

As noted in previous reports, in 2021 the NZNEP proposed upscaling of free equipment to the Ministry. Harm reduction potential informs the choice of proposed products, augmented by a combination of currently most commonly purchased items within the NZNEP, data from the above noted Safer Injecting Study (Ponton et al., 2020), data from previous NZNEP research (Noller & Henderson, 2014), international literature (Stein et al., 2020; Public Health England, 2021) and first-

hand knowledge of injecting drug use in NZ by peer staff. Prioritised products include: all syringes, butterflies (23g, 25g, 27g), sterile water (10ml), Maxi-cup cooker (larger size - Steri-cup), wheel filters (0.2, 0.45. 0.8, 1.2, & 5.0 micron) and latex tourniquets.

Table 8: July-June 2022 distribution of all syringe sizes, for NEXs, grouped by regional trusts

	Jul-Jun 2022									
	0.5ml	1ml*	3ml Free	3ml Purchased	5ml	10ml	20ml	30ml	50ml	Total
EAST ST AK	5,628	113,943	221,520	15,642	2,810	8,138	542	213	244	368,680
SOUTH AK	1,388	24,044	37,852	-	543	1,091	71	29	13	65,031
WELLSFORD	188	2,282	10,061	-	65	406	2	1	-	13,005
WHANGĀREI	-	8,719	27,537	-	230	1,682	214	142	26	38,550
	7,204	148,988	296,970	15,642	3,648	11,317	829	385	283	485,266
MOUNT MAUNGANUI	-	10,894	22,702	1,737	422	1,034	166	27	26	37,008
NEW PLYMOUTH	-	4,226	98,066	2,505	403	2,922	381	93	-	108,596
HAMILTON	1,735	28,276	86,505	5,611	764	3,488	1,075	568	211	128,233
ROTORUA	596	7,199	32,127	1,019	341	1,630	49	-	29	42,990
	2,331	50,595	239,400	10,872	1,930	9,074	1,671	688	266	316,827
NAPIER	-	7,376	88,442	10,391	1,567	1,678	227	558	5	110,244
PALMERSTON NORTH	-	6,453	121,425	4,359	1,338	5,368	519	618	18	140,098
WAIRARAPA	-	319	22,695	1,712	845	2,198	57	34	6	27,866
WELLINGTON	-	10,720	133,603	16,411	2,622	8,003	182	793	88	172,422
WHANGANUI	88	2,398	46,126	2,326	885	2,205	119	47	6	54,200
	88	27,266	412,291	35,199	7,257	19,452	1,104	2,050	123	504,830
DUNEDIN	-	2,314	116,297	5,959	1,278	4,175	605	85	511	131,224
NELSON	377	2,440	54,758	2,994	895	5,856	999	462	39	68,820
CHRISTCHURCH	23	28,957	364,619	11,310	1,122	2,586	427	489	228	409,761
NEW BRIGHTON	-	1,917	91,244	372	202	850	139	113	34	94,871
INVERCARGILL	-	2,135	58,093	61	38	581	172	73	-	61,153
WEST COAST MOBILE	-	308	15,353	-	781	1,230	289	17	2	17,980
	400	38,071	700,364	20,696	4,316	15,278	2,631	1,239	814	783,809
ASHBURTON	-	141	23,938	9	9	106	53	101	2	24,359
TIMARU	-	545	53,243	1,783	176	741	370	137	22	57,017
	-	686	77,181	1,792	185	847	423	238	24	81,376
ONLINE SHOP	1,199	13,494		10,045	932	1,906	572	510	173	28,831
PHARMACY		23,600	259,900	15,700	6,670	22,600	1,404	809	165	330,848
	1,199	37,094	259,900	25,745	7,602	24,506	1,976	1,319	338	359,679
TOTAL SYRINGES										**2,531,787**

*1ml and 1ml insulin syringes combined

7.3.1 Distribution of purchased 1ml syringes

Below, *Table 9* shows the purchases of 1ml insulin syringe (fix needle attached) and 1ml syringes (no needle). The table shows the 1ml insulin syringes as a percentage of all 1 ml syringes.

As was noted previously (i.e. section 7.1 and *Figure 14*), 1ml syringes generally and the insulin syringe in particular are commonly used by PWID for injecting methamphetamine. Correlating equipment with drug types is one means of estimating numbers of clients injecting specific drugs. These data can then be compared across regions and individual NEXs.

Understanding the 'popularity' of specific equipment also facilitates the reviewing of equipment supply, e.g. where a particular item may be so popular that supplying other versions of it could be considered redundant.

It is evident from *Table 9's* data that 1ml insulin syringes are a popular type of 1m syringe, with clients from multiple NEXs (Napier, Wairarapa, New Plymouth, Rotorua, Nelson, New Brighton, Dunedin, Invercargill, both the TNET NEXs, Dunedin, West Coast Mobile 99-100%) preferring these exclusively. One point of interest, however, is the 10% reduction in insulin syringes as a portion of all 1ml syringes, at the ADIO NEXs. This shift is unique to the ADIO NEXs and is despite a 4.4% increase in the distribution of 1ml syringes overall, at that Trust.

Table 9: July-June 2022 distribution of 1ml Insulin syringes as a percentage of all 1ml syringes

	Insulin 1ml	Total 1 ml	%
EAST ST AK	76,112	113,943	66.8%
SOUTH AK	9,151	24,044	38.1%
WELLSFORD	1,865	2,282	81.7%
WHANGĀREI	3,766	8,719	43.2%
ADIO	**90,894**	**148,988**	**61.0%**
MOUNT MAUNGANUI	10,594	10,894	97.2%
NEW PLYMOUTH	4,226	4,226	100.0%
HAMILTON	27,880	28,276	98.6%
ROTORUA	7,199	7,199	100.0%
Midlands	**49,899**	**50,595**	**98.6%**
NAPIER	7,376	7,376	100.0%
PALMERSTON NORTH	6,329	6,453	98.1%
WAIRARAPA	319	319	100.0%
WELLINGTON	9,624	10,720	89.8%
WHANGANUI	2,392	2,398	99.7%
DHDP	**26,040**	**27,266**	**95.5%**
DUNEDIN	2,314	2,314	100.0%
NELSON	2,440	2,440	100.0%
CHRISTCHURCH	28,335	28,957	97.9%
NEW BRIGHTON	1,916	1,917	99.9%
INVERCARGILL	2,123	2,135	99.4%
WEST COAST MOBILE	308	308	100.0%
DISC	**35,122**	**35,757**	**98.2%**
ASHBURTON	141	141	100.0%
TIMARU	545	545	100.0%
TNET	**686**	**686**	**100.0%**
ONLINE SHOP	8,714	13,494	64.6%
PHARMACY	20,500	23,600	86.9%
	29,214	**37,094**	**78.8%**

Overall, across NEX regions the distribution of 1ml insulin syringes ranged from 61% of all 1m syringes (ADIO) to 100% of the TNET NEXs. Total distribution of insulin syringes from NEXs amounted to 202,641 or 76.9% of the 263,292 1m syringes attributed to NEX regions. These data exclude the Online Shop's

1ml sales, where 64.6% of the 4,914 1ml needles purchased were 1ml insulin syringes (effectively unchanged from the previous period).

Additionally, pharmacies and alternate outlets were supplied with a further 20,500 insulin syringes (all 1ml), comprising 86.9% of the total of 23,600 1ml syringes they received from NEST. The latter represents 8.9% of all 1ml syringes distributed by the programme.

In the July 2021-June 2022 period dedicated NEXs distributed 87% of both insulin syringes and of 1ml syringes overall, 3% down from the preceding period.

8. Wheel Filters

Table 10: July 2021-June 2022 filter distribution, all outlets

Outlets	Filters	%
EAST ST AK	6,201	13.6%
SOUTH AK	568	1.2%
WELLSFORD	154	0.3%
WHANGĀREI	946	2.1%
ADIO	**7,869**	**17.3%**
MOUNT MAUNGANUI	2,171	4.8%
NEW PLYMOUTH	481	1.1%
HAMILTON	2,449	5.4%
ROTORUA	471	1.0%
Midlands	**5,572**	**12.2%**
NAPIER	1,041	2.3%
PALMERSTON NORTH	3,709	8.1%
WAIRARAPA	84	0.2%
WELLINGTON	6,091	13.4%
WHANGANUI	143	0.3%
DHDP	**11,068**	**24.3%**
DUNEDIN	3,496	7.7%
NELSON	1,943	4.3%
CHRISTCHURCH	7,186	15.8%
NEW BRIGHTON	3,399	7.5%
INVERCARGILL	817	1.8%
WEST COAST MOBILE	585	1.3%
DISC	**17,426**	**38.3%**
ASHBURTON	790	1.7%
TIMARU	1,344	3.0%
TNET	**2,134**	**4.7%**
ONLINE SHOP	478	1.1%
PHARMACY	975	2.1%
Grand	**45,522**	

Wheel filters are a key harm reduction utensil which have the potential to impact significantly on the health of PWID, primarily due to their filtration of particulate matter from prepared drugs. Wheel filters are not available to clients free which creates a barrier to harm reduction. This is particularly relevant in New Zealand due to the injectable drug market being dominated by pharmaceutical drugs, with the result that drugs prepared for injection commonly contain impurities (including residue from drug substrates) which have the potential to contribute to a range of injection related injuries and diseases (IRIDs). There is limited knowledge about the prevalence and incidence of IRIDs among New Zealand PWID, although the 2014 seroprevalence survey (Noller and Henderson, 2014) and the safer injecting study (Ponton et al., 2020) collected a small amount of data on these. The former reported that 61% of clients surveyed in 2013 had experienced at least one IRID, while the latter noted that 48.5% of participants (n=101) had attended a health service due to an IRID at least once, with the injection of methadone and turned morphine implicated in 33 of 77 (42.8%) of reported events.

As already noted, along with most items of equipment currently available via the NZNEP, filters are not part of the free schedule of equipment and must therefore be purchased. Their cost varies across NEP outlets, with the base cost being $1.50 per filter. However, three trusts – DISC, DHDP and TIMARU – subsidise filters, reducing the cost per unit to $0.80. Filters are available in

five sizes: 0.2, 0.45, 0.8, 1.2 and 5.0 microns. Cigarette filters are also available at no cost but provide much less adequate filtration. For the purposes of the present report filters will not be differentiated by size and cigarette filter data will not be reported.

8.1 Filter distribution for 2022

Overall, 45,522 filters were purchased by clients during the July 2021-June 2022 reporting period, with 96.8% of these accessed via dedicated NEXs (*Table 10*). This skew against pharmacies and alternate outlets (i.e. only 1453 units purchased from these outlets) likely represents the impact of a significant price mark-up by these outlets. Anecdotal reports suggest pharmacies sell filters for between $2 and $4 per unit (Personal communication between GN and Jason George, NEST Harm Reduction Lead, 10 June 2021). During this reporting period 180 (0.4%) filters were purchased via the Online Shop.

Table 10 reports filter sales for the five regional trusts and pharmacies / alternate outlets, including the outlet percentage relative to the national total. These data are interesting for at least two reasons. First and most obviously, compared with the number of injections occurring annually, filter use is minimal, and in fact declined by 4,500 units over the preceding period. For example, comparing filter distribution with that of needles (i.e. 45,500 vs 3.9 million) suggests that currently only 1.1% of injections are filtered. A potentially more accurate comparison between filters and syringes (the latter 2.75 million) still only increases filtering per injection to 1.65%, effectively less than 1 in 50 injections. Filtering injections, or rather the lack of doing this, is clearly a major issue in New Zealand, not the least because of our unique injecting drug use landscape which relies significantly on pharmaceutical drugs, most of which contain considerable particulate matter requiring filtration. Harmful bacteria is also a risk factor for causing infections when injected, particularly when non-sterile water sources are used. The use of an appropriate wheel filter significantly reduces the risk of bacterial infection.

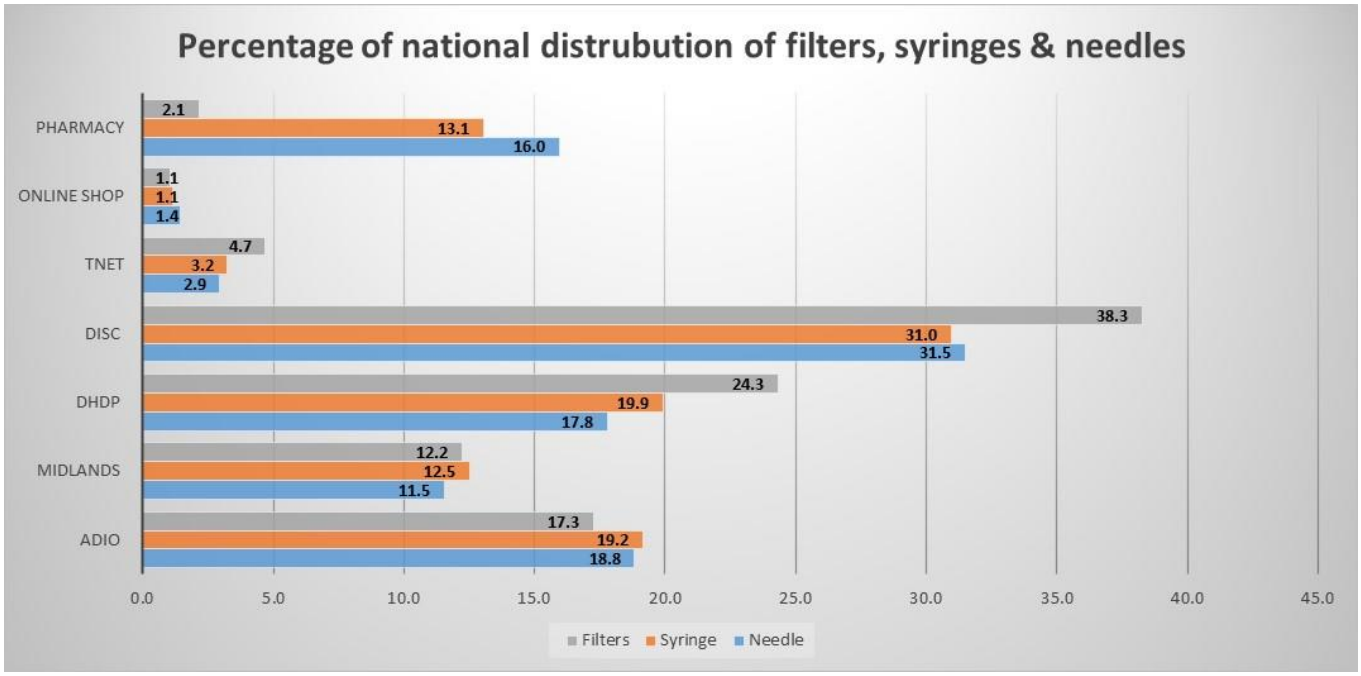


Fig. 15: Percentage comparison of filter, syringe and needle distribution across regional trusts, July-June 22

Of further interest is what appears to be a change from the previous reporting period, which described that that the higher price of filters charged by some trusts did not necessarily translate into

proportionately reduced uptake, i.e. where filters are not subsidised. In the present reporting period it seems that where filters are subsidised, there is a greater uptake by clients. This is demonstrated in *Figure 15*, which compares trusts' proportions of the national distribution of filters, syringes and needles. For example, data from trusts subsidizing filters (DHDP, DISC and TNET) show higher proportions of their respective national share for filters vs syringes or needles. By contrast, non-subsidising trusts (ADIO and MIDLANDS) distribute proportionately less filters than they do syringes, for example. The most obvious differential is with the pharmacies, which account for only 2.1% of filters; unsurprising as filters are most expensive when purchased from these outlets.

Notwithstanding unexplained variations in some of the preceding data, overall those describing syringe and filter use and sale, add further impetus to the recently proposed product upscale outlined above (Section 7.3).

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Appendix — Top 20 outlets by distribution

Table 12: The top 20 outlets[7] for July-June 2021-2022 compared with July-June 2020-2021

Rank 2022	Rank 2021	Health Area	Outlet type & location	2022 Free	2022 Pur	2022 COM	2021 COM	Variance %
1	1	Southern	NEX Christchurch	589352	58496	647813	644035	0.6
2	2	Northern	NEX East St. Auckland	450006	112469	562452	527581	6.6
3	3	Central	NEX Wellington	194761	14792	246599	225060	9.5
4	5	Central	NEX Palmerston Nth.	195707	24096	219780	214053	2.6
5	4	Southern	NEX Dunedin	193733	21190	214905	219263	-2.0
6	6	Midlands	NEX Hamilton	143000	49231	192226	181849	5.7
7	9	Midlands	NEX New Plymouth	143721	14730	160227	146250	9.5
8	7	Southern	NEX New Brighton	142581	3836	146399	156712	-6.6
9	8	Central	NEX Napier	118056	27051	145097	150085	-3.4
10	10	Southern	NEX Nelson	99107	25539	124627	130841	-4.8
11	11	Northern	NEX South Auckland	98407	12274	110651	109947	-0.6
12	13	Southern	NEX Invercargill	88614	3218	91811	95011	-3.4
13	12	Southern	NEX Timaru	75634	7952	83574	103570	-19.4
14	14	Central	NEX Whanganui	53130	51862	67885	72221	-6.1
15	16	Northern	NEX Whangārei	56018	5971	61955	58496	5.9
16	26	National	NEST Online	n/a	57080	57080	22346	255.0
17	17	Midlands	NEX Rotorua	45627	10178	55786	54471	2.4
18	15	Midlands	NEX Mt Maunganui	38220	16739	54929	58712	-6.5
19	22	Southern	Pharm. Chch (Eastgate)	37200	2600	39800	34204	16.3
20	18	Southern	NEX West Coast	37428	1667	39094	53907	-27.5

[7] With the exception of Eastgate Pharmacy, all outlets (including the Online Shop) are dedicated needle exchanges (NEXs).