Needle and Syringe Distribution in Western Australia, 2003 to 2012
Acknowledgments

We acknowledge the needle and syringe exchange programs and pharmaceutical suppliers that have provided the needle and syringe distribution or sales data upon which this report is based.

Editors

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Disclaimer

Every endeavour has been made to ensure that the information provided in this document was accurate at the time of writing. However, needle and syringe distribution data may be subject to change.

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1. Introduction and Methods

Since 2008, needle and syringe distribution data has been included in the annual reports of the *Epidemiology of Notifiable Sexually Transmitted Infections and Blood-Borne Viruses in Western Australia* produced by the Communicable Disease Control Directorate (CDCD), WA Department of Health (previous reports are available at [www.public.health.wa.gov.au/](http://www.public.health.wa.gov.au/)). Prior to this, from 1996 to 2007, the Drug and Alcohol Office produced a number of statistical bulletins providing detailed analysis of needle and syringe distribution in Western Australia. The most recent of these reports, *Distribution of Needles and Syringes in Western Australia from 1987–2005*, is available at [www.dao.health.wa.gov.au/](http://www.dao.health.wa.gov.au/).

A journal article was also published in 2012¹ which described needle and syringe distribution trends in Western Australia from 1990 to 2009.

This report is the first stand alone report of needle and syringe distribution in Western Australia produced by the CDCD. The report describes the number of needles and syringes distributed in Western Australia from 2003 to 2012.

Data Sources

The *WA Poisons Act 1964* authorises approved organisations to provide sterile injecting equipment to people who inject drugs. Any organisation that operates a needle and syringe program (NSP) must meet specific requirements as stated in the *Poisons Regulations 1965* and be approved under the Act by the Chief Executive Officer of the Department of Health (or their delegate).

Data are collected across all types of NSPs operating in WA:

- fixed-site and mobile needle and syringe exchange programs (NSEPs) that supply free sterile needles and syringes upon the return of used items (for some NSEPs, if the items are not returned, a cost recovery charge applies)
- pharmacy-based NSPs that operate on a retail basis, primarily selling pre-packaged needles and syringes in various kits (a small number of pharmacies also hold *Poisons Act* approval to sell ‘loose’ needles and syringes)
- other health services that provide NSPs including hospitals, Public Health Units (PHUs), community health centres, nursing posts and other health related agencies (some health services provide needles and syringes via a vending machine).

There are some limitations of the needle and syringe distribution data that are presented in this report. The NSEPs are the only NSPs which provide actual distribution data to CDCD. Data for all other NSPs was derived from stock ordered. For example, if an NSP hospital site orders stock that lasts two years, the data shows ‘distribution’ only once in that two-year period. However, this method is considered the most reliable and most administratively feasible given the number of secondary outlets operating in WA. Pharmaceutical wholesalers from which pharmacies order stock of pre-packages needle and syringe kits provide data for these outlets.

Data is entered into an on-line database (known as the ‘Fits database’) and was analysed for this report using Microsoft® Excel.

While the majority of equipment distributed is 1mL needle and syringes, which are entered as one unit in the data base, some outlets also distribute different sized needles and syringes. For the purposes of data collection, where needles and syringes are distributed separately, needles are considered as one unit, and syringes are not entered into the data base.

**Regional boundaries**

WA is divided into nine health administrative regions. Two of the regions are in the Perth metropolitan area (North and South Metropolitan) and seven are in the regional areas (Kimberley, Pilbara, Midwest, Wheatbelt, Goldfields, South West and Great Southern).

**Data revision**

Data presented in this report may vary from previous publications because the database maintained by the department used to compile this report may have been revised due to cleaning, recoding and/or updates of systems.
2. National data

The goal of the *Third National Hepatitis C Strategy 2010–2013*\(^2\) is to reduce the transmission of, and morbidity and mortality caused by hepatitis C and to minimise the personal and social impact of the disease.

The strategy detailed objectives and indicators that were to be used to monitor progress. An objective relevant to this needle and syringe distribution report is *to increase access to new injecting equipment through needle and syringe programs (NSPs)*.

The indicators relevant to this objective were:

- per capita rate of needles and syringes distributed in the public and pharmacy sector in the previous 12 months
- proportion of people who inject drugs and who report re-using another person’s used needle and syringe in the last month.

In relation to the above objective, the National Blood-borne Virus and Sexually Transmissible Infections Surveillance and Monitoring Report 2013\(^3\) notes (page 8) that:

> Around one in six PWID [people who inject drugs] who participate in the ANSPS [Australian Needle and Syringe Program Survey] continue to report recent receptive syringe sharing, a proportion that has remained relatively stable during the life of the national strategies. National needle and syringe distribution data indicate an increase in the number of units distributed over the same time frame. However, population-based coverage of needles and syringes is not well known.

The report\(^3\) notes that national needle and syringe data was collated for the first time in 2013 by the Kirby Institute. The figure in the national report that illustrates this\(^3\) is reproduced below for the purpose of comparison with WA distribution trends.

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Figure 1 shows that, nationally, distribution of needles and syringes has increased over the period 2003-2012, with approximately 32 million needles and syringes distributed in Australia in 2003 as compared to 42 million in 2012. The majority of distribution over the ten-year period occurred through public sector NSP (i.e. government funded services including NSEPs and health service based NSPs).

Figure 2 Number of needles and syringes distributed by outlet type, WA, 2003 to 2012

Figure 2 shows that the number of needles and syringes distributed in WA increased by over 1.1 million from 3,542,432 in 2003 to 4,709,970 in 2012. This represented a 33% increase over the ten-year reporting period. Distribution increased 10% from 2011 (4,259,514) to 2012, the largest annual increase in the ten-year reporting period.

In 2003, approximately 45% of needles and syringes distributed in WA were sold through pharmacies while NSEPs accounted for 47% and other services accounted for 8% (Figure 2). Since 2003, the proportion of needles and syringes distributed by pharmacies has steadily decreased, and in 2012 pharmacies accounted for only 28% of all needles and syringes distributed in WA. Conversely, the proportion of needles and syringes distributed by NSEPs has steadily increased, with these programs accounting for 60% of all needles and syringes distributed in WA in 2012. This may reflect the development of new NSEP services in WA over this time period. The proportion of needles and syringes distributed by other services was 12% in 2012.
Figure 3 Number of needles and syringes distributed by metropolitan and non-metropolitan area, WA, 2003 to 2012

Table 1 Number of and proportion of needles and syringes distributed by Public Health Unit region, WA, 2003 to 2012

<table>
<thead>
<tr>
<th>Year</th>
<th>Metropolitan</th>
<th>Goldfields</th>
<th>Great Southern</th>
<th>Kimberley</th>
<th>Midwest</th>
<th>Pilbara</th>
<th>South West</th>
<th>Wheatbelt</th>
<th>WA (Total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>3,030,815</td>
<td>126,553</td>
<td>24,812</td>
<td>24,630</td>
<td>85,522</td>
<td>58,277</td>
<td>167,545</td>
<td>24,278</td>
<td>3,542,432</td>
</tr>
<tr>
<td>2004</td>
<td>3,055,795</td>
<td>123,460</td>
<td>33,052</td>
<td>29,930</td>
<td>104,361</td>
<td>71,779</td>
<td>217,744</td>
<td>24,466</td>
<td>3,660,587</td>
</tr>
<tr>
<td>2005</td>
<td>3,408,796</td>
<td>115,350</td>
<td>30,320</td>
<td>19,265</td>
<td>92,588</td>
<td>70,241</td>
<td>216,330</td>
<td>22,070</td>
<td>3,974,960</td>
</tr>
<tr>
<td>2006</td>
<td>3,625,322</td>
<td>106,049</td>
<td>35,351</td>
<td>30,440</td>
<td>104,017</td>
<td>97,070</td>
<td>235,379</td>
<td>19,617</td>
<td>4,253,245</td>
</tr>
<tr>
<td>2007</td>
<td>3,593,246</td>
<td>138,179</td>
<td>32,266</td>
<td>32,030</td>
<td>85,395</td>
<td>106,674</td>
<td>234,289</td>
<td>27,052</td>
<td>4,249,131</td>
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<tr>
<td>2008</td>
<td>3,525,613</td>
<td>152,711</td>
<td>23,534</td>
<td>25,683</td>
<td>107,669</td>
<td>80,409</td>
<td>203,098</td>
<td>26,474</td>
<td>4,145,191</td>
</tr>
<tr>
<td>2009</td>
<td>3,489,845</td>
<td>132,961</td>
<td>29,667</td>
<td>20,261</td>
<td>77,973</td>
<td>98,440</td>
<td>182,061</td>
<td>15,224</td>
<td>4,046,432</td>
</tr>
<tr>
<td>2010</td>
<td>3,438,043</td>
<td>164,747</td>
<td>30,416</td>
<td>20,334</td>
<td>110,304</td>
<td>57,822</td>
<td>232,542</td>
<td>14,899</td>
<td>4,069,097</td>
</tr>
<tr>
<td>2012</td>
<td>3,777,245</td>
<td>196,522</td>
<td>62,688</td>
<td>32,332</td>
<td>177,680</td>
<td>95,048</td>
<td>342,642</td>
<td>25,813</td>
<td>4,709,970</td>
</tr>
</tbody>
</table>

Note: Metropolitan = North Metropolitan + South Metropolitan Public Health Units
The majority of needles and syringes were consistently distributed in the Metropolitan region over the ten-year period. The number of needles and syringes distributed in the Metropolitan region increased by 25% over the ten-year period, from 3,030,815 in 2003 to 3,777,245 in 2012 (see Figure 3 and Table 1).

In the non-Metropolitan regions, the number of needles and syringes distributed increased by 82% during the same time period, from 511,617 in 2003 to 932,725 in 2012. Of the needles and syringes distributed in the non-Metropolitan regions, the Southwest region distributed the highest proportion in 2003 and in 2012, with the proportion distributed in the region increasing (4.7% of all needles and syringes distributed in 2003 compared to 7.3% in 2012) and the number of needles and syringes distributed in that region more than doubling over this time period (n = 167,545 in 2003 and n=342,642 in 2012) (Table 1; Figure 3).

Figure 4 Needle and syringe distribution 2012, WA, by Public Health Unit Region and outlet type

![Figure 4](image-url)

Figure 4 shows the proportion of needle and syringe distribution occurring through the different outlet types by region, and the number distributed by the various outlets in each region. As can be seen, in those regions where there is an NSEP, these outlets are responsible for the majority of distribution. In those regions where there is not an NSEP, ‘other’ outlets (primarily hospitals and other health services) are responsible for the majority of distribution. Pharmacies also make a significant contribution to distribution, particularly in the Metropolitan, Great Southern and Wheatbelt regions.
As noted previously (see Figure 2), a noticeable increase (10%) occurred in needle and syringe distribution in 2012 as compared to 2011, with increases observed across all outlet types (NSEP, pharmacy and other).

Enhanced NSEP services were established in Mandurah, Fremantle, Bunbury and Geraldton in late 2011 and early 2012. This may have made some contribution to increased distribution in these areas, although increased needle and syringe distribution was observed in 2012 across all regions, both metropolitan and non-metropolitan.
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