



Government of **Western Australia**
Department of **Health**

Needle and Syringe Distribution in Western Australia, 2004 to 2013

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.

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Published By

This publication has been produced by the **Department of Health, Western Australia.**

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Introduction and Methods

This report is the second stand alone report of needle and syringe distribution in Western Australia produced by the Communicable Disease Control Directorate (CDCD), WA Department of Health. The report describes the number of needles and syringes distributed in Western Australia from 2004 to 2013. The previous report details distribution from 2003 to 2012.

From 2008 to 2011, needle and syringe distribution data was included in the annual reports of the *Epidemiology of Notifiable Sexually Transmitted Infections and Blood-Borne Viruses in Western Australia* produced by the CDCD (these reports are available at 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/. A journal article was also published in 2012¹ which described needle and syringe distribution trends in Western Australia from 1990 to 2009.

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 a *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 (over one hundred) 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.

¹ Lilley, G., Mak, D. B., & Fredericks, T. (2013). Needle and syringe distribution trends in Western Australia, 1990 to 2009. *Drug and alcohol review*, 32(3), 320-327.

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 database, 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.

Crude rates of needle and syringe distribution per capita were calculated by dividing the number of needles and syringes distributed in a region by the total number of people within that region, and were expressed per capita.

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 non-Metropolitan area (Kimberley, Pilbara, Midwest, Wheatbelt, Goldfields, South West and Great Southern). Maps showing needle and syringe programs (excluding pharmacies) within regional boundaries are available at http://www.public.health.wa.gov.au/2/102/2/needle_and_syringe_program.pm.

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 data cleaning, recoding and/or updates of systems.

Strategic context

The Fourth National Hepatitis C Strategy 2014-2017 has objectives including reducing the incidence of hepatitis C and reducing the risk behaviours associated with the transmission of hepatitis C. An indicator in the strategy relevant to these objectives is the per capita number of needles and syringes distributed in the previous calendar year.²

The Seventh National HIV Strategy 2014-2017 similarly has objectives including reducing HIV incidence and reducing risk behaviours associated with the transmission of HIV. A target in that strategy is to maintain effective prevention programs for people who inject drugs.³

Interpretation of data

Data in this report only represents numbers and rates of needle and syringe distribution and does not necessarily reflect changes in numbers or rates of injecting drug use in any area or region. Needle and syringe distribution may be variable according to a range of factors that are not included in these calculations, for example increased service availability. For example, as noted in the previous needle and syringe distribution report, enhanced NSEP services were established in Mandurah, Fremantle, Bunbury and Geraldton in late 2011 and early 2012.⁴ This may have contributed to increased needle and syringe distribution in these areas since the establishment of these services, indicating previously unmet demand.

² Commonwealth of Australia, 2014. *Fourth National Hepatitis C Strategy 2014–2017*, viewed 2 December 2014, <http://www.health.gov.au/internet/main/publishing.nsf/Content/ohp-bbvs-hepc>

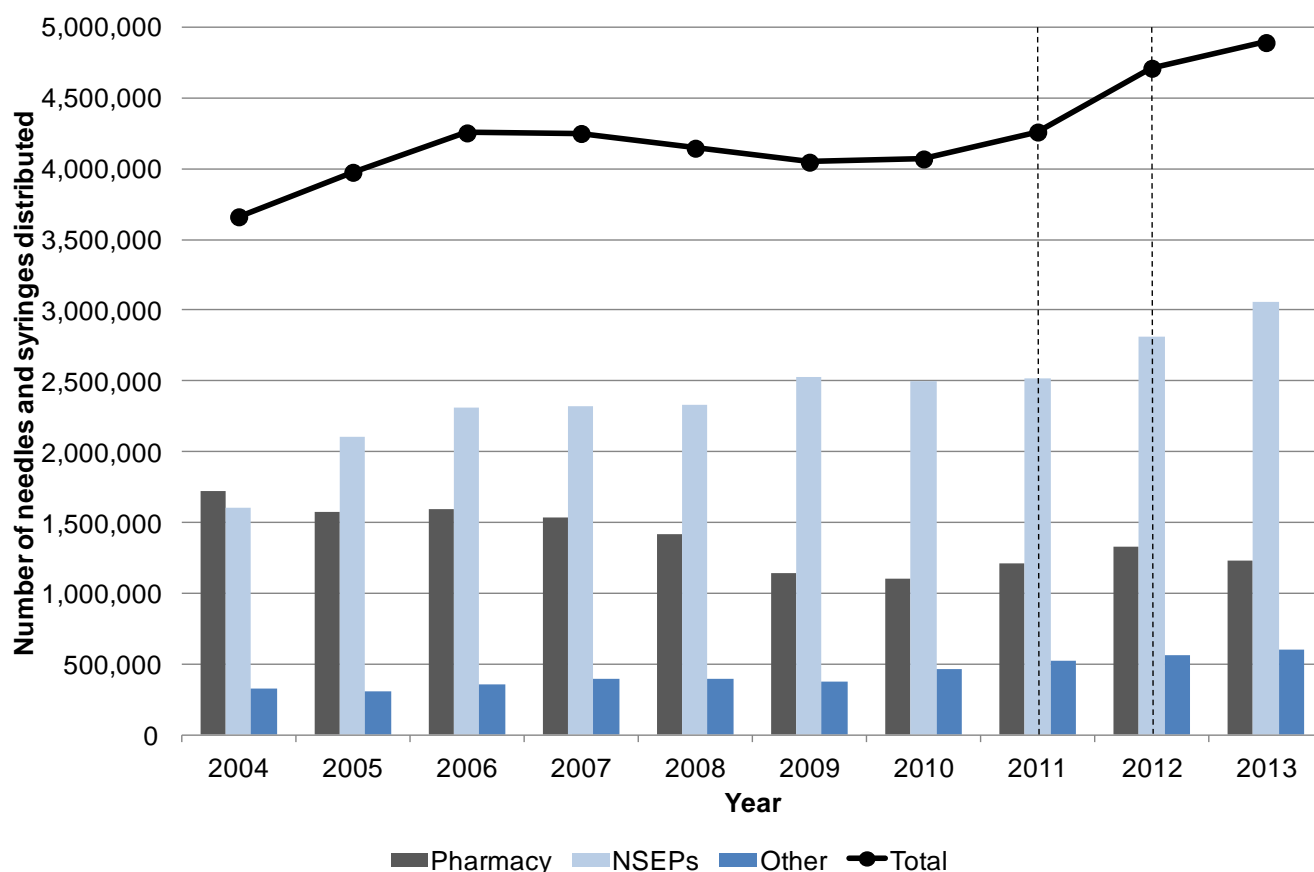
³ Commonwealth of Australia, 2014. *Seventh National HIV Strategy 2014-2017*, viewed 2 December 2014, <http://www.health.gov.au/internet/main/publishing.nsf/Content/ohp-bbvs-hiv>

⁴ Government of Western Australia Department of Health. *Needle and Syringe Distribution in Western Australia, 2003 to 2012*, viewed 2 December 2014, http://www.public.health.wa.gov.au/cproot/5753/2/2012_ns_report_final.pdf.

Needle and Syringe Distribution in WA, 2004 to 2013

Distribution by outlet type

Figure 1: Number of needles and syringes distributed by outlet type, WA, 2004 to 2013



Notes: Midwest Community Drug Service Team (CDST) Geraldton changed from NSP to NSEP September 2011
 WA AIDS Council (WAAC) Fremantle changed from mobile NSEP to fixed site NSEP October 2011
 Palmerston Mandurah fixed site NSEP commenced (replacing WAAC mobile NSEP in Mandurah) April 2012
 WA Substance Users Association (WASUA) Bunbury changed from mobile NSEP to fixed site NSEP April 2012

The number of needles and syringes distributed in WA increased by over 1.2 million, from 3,660,587 in 2004 to 4,891,387 in 2013. This represented a 34% increase over the ten-year reporting period. Distribution increased 10% from 2011 (4,259,514) to 2012 (4,709,970), the largest annual increase in the ten-year reporting period. Distribution increased a further 4% from 2012 to 2013 (Figure 1).

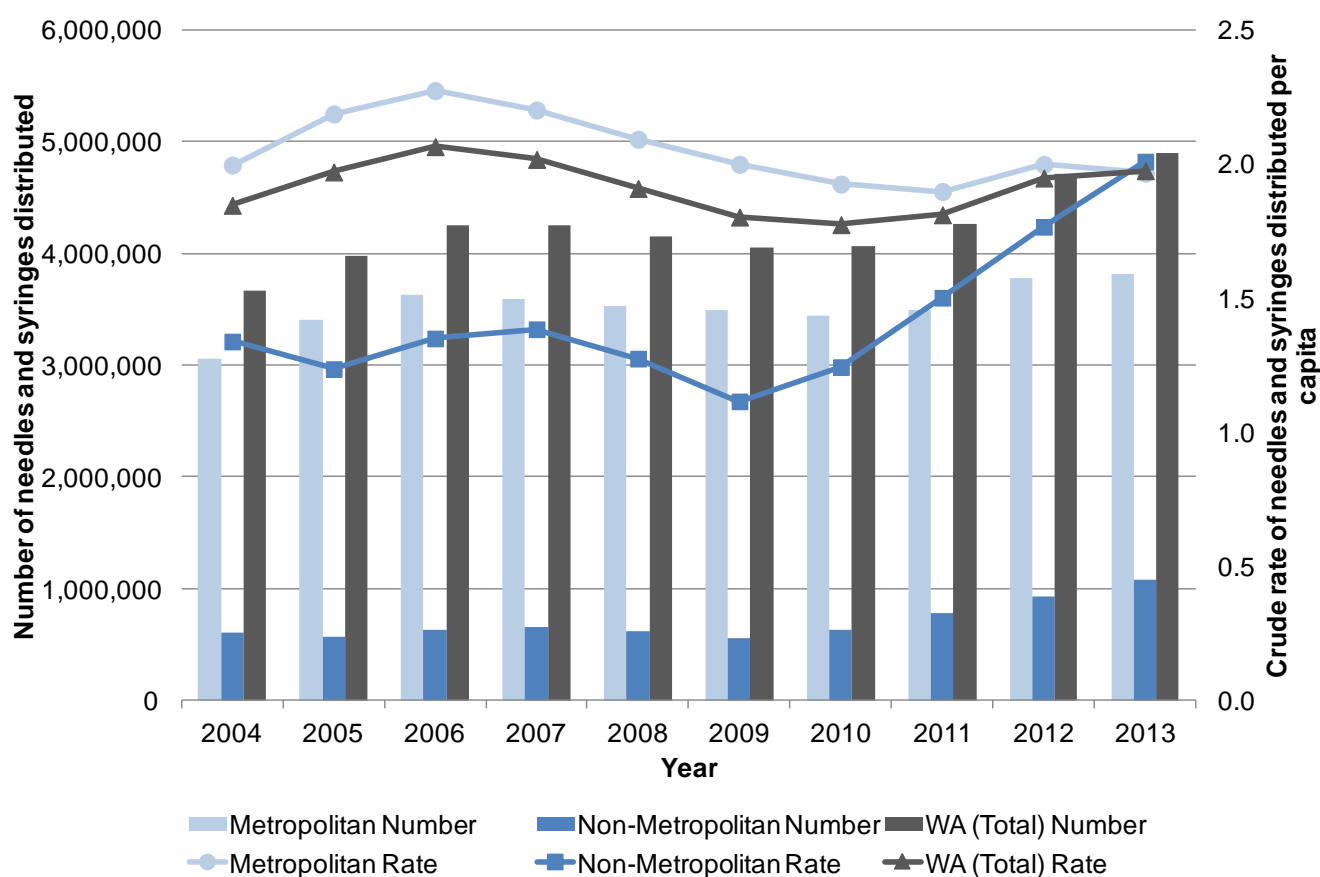
In 2004, 47% of needles and syringes distributed in WA were sold through pharmacies while NSEPs accounted for 44%. Since 2004, the proportion of needles and syringes distributed by pharmacies has decreased, and in 2013 pharmacies accounted for only 25% of all needles and syringes distributed in WA. Conversely, the proportion of needles and syringes distributed by NSEPs has steadily increased, with these programs accounting for 62% of all needles and syringes distributed in WA in 2013. This may reflect the development of new NSEP services in WA over this time period. As is indicated in Figure 1, new NSEP services were developed in Geraldton, Fremantle, Mandurah and Bunbury in 2011 and 2012. These services replaced or

enhanced existing services. In Fremantle, Mandurah and Bunbury where the service delivery model was changed from a mobile to fixed site NSEP, this also allowed for an increase in hours of service delivery. In Geraldton, the service model was changed from an NSP (only providing pre-packaged needle and syringe kits) to an NSEP (providing a wider range of injecting equipment, disposal facilities and increased opportunity for provision of information and education).

The proportion of needles and syringes distributed by other services has increased from 4% in 2004 to 12% in 2013 (Figure 1).

Distribution by region

Figure 2: Number and crude rate of needles and syringes distributed by area, WA, 2004 to 2013



Over the previous ten-year period, the majority of needles and syringes were distributed in the Metropolitan area and increased by 25% from 3,055,795 in 2004 to 3,811,278 in 2012 (Figure 2 and Table 1). However, the proportion of needles that were distributed in the Metropolitan area decreased over the ten-year period (from 83.5% to 77.9%), with the total proportion distributed in the non-Metropolitan area correspondingly increasing (from 16.5% to 22.1%) (Table 1).

Table 1: Number and proportion of needles and syringes distributed by region, WA, 2004 to 2013

Year		Region								WA (Total)
		Metropolitan	Goldfields	Great Southern	Kimberley	Midwest	Pilbara	South West	Wheatbelt	
2004	Number	3,055,795	123,460	33,052	29,930	104,361	71,779	217,744	24,466	3,660,587
	Percentage	83.5%	3.4%	0.9%	0.8%	2.9%	2.0%	5.9%	0.7%	100.0%
2005	Number	3,408,796	115,350	30,320	19,265	92,588	70,241	216,330	22,070	3,974,960
	Percentage	85.8%	2.9%	0.8%	0.5%	2.3%	1.8%	5.4%	0.6%	100.0%
2006	Number	3,625,322	106,049	35,351	30,440	104,017	97,070	235,379	19,617	4,253,245
	Percentage	85.2%	2.5%	0.8%	0.7%	2.4%	2.3%	5.5%	0.5%	100.0%
2007	Number	3,593,246	138,179	32,266	32,030	85,395	106,674	234,289	27,052	4,249,131
	Percentage	84.6%	3.3%	0.8%	0.8%	2.0%	2.5%	5.5%	0.6%	100.0%
2008	Number	3,525,613	152,711	23,534	25,683	107,669	80,409	203,098	26,474	4,145,191
	Percentage	85.1%	3.7%	0.6%	0.6%	2.6%	1.9%	4.9%	0.6%	100.0%
2009	Number	3,489,845	132,961	29,667	20,261	77,973	98,440	182,061	15,224	4,046,432
	Percentage	86.2%	3.3%	0.7%	0.5%	1.9%	2.4%	4.5%	0.4%	100.0%
2010	Number	3,438,043	164,747	30,416	20,334	110,304	57,822	232,542	14,889	4,069,097
	Percentage	84.5%	4.0%	0.7%	0.5%	2.7%	1.4%	5.7%	0.4%	100.0%
2011	Number	3,485,119	176,145	51,141	20,909	136,138	82,210	284,278	23,574	4,259,514
	Percentage	81.8%	4.1%	1.2%	0.5%	3.2%	1.9%	6.7%	0.6%	100.0%
2012	Number	3,777,245	196,522	62,688	32,332	177,680	95,048	342,642	25,813	4,709,970
	Percentage	80.2%	4.2%	1.3%	0.7%	3.8%	2.0%	7.3%	0.5%	100.0%
2013	Number	3,811,278	135,186	92,496	44,780	227,156	136,450	404,943	39,098	4,891,387
	Percentage	77.9%	2.8%	1.9%	0.9%	4.6%	2.8%	8.3%	0.8%	100.0%

Notes: Metropolitan = North Metropolitan + South Metropolitan regions
 Non-Metropolitan = Goldfields + Great Southern + Kimberley + Midwest + Pilbara + Wheatbelt regions

In the non-Metropolitan area, the number of needles and syringes distributed increased by 79% during the same time period, from 604,792 in 2004 to 1,080,109 in 2013 (Figure 2 and Table 1). Of the needles and syringes distributed in the non-Metropolitan area, the Southwest region distributed the highest proportion every year from 2004 to 2013, with the proportion distributed in the region increasing (5.9% of all needles and syringes distributed in 2004 compared to 8.3% in 2013) and the number of needles and syringes distributed in that region nearly doubling over this time period (217,744 in 2004 and 404,943 in 2012) (Table 1).

Note that the Goldfields region shows a substantial decrease in the number of needles and syringes distributed in 2013 as compared to 2012. This is understood to be an artefact of the way data was collected (see Data Sources - page 3), as a large stock order was made by a secondary outlet in the Goldfields in December 2012. This inflated the figures for 2012, and reduced the figure for 2013 as the stock ordered lasted well into 2013 with a further order not being placed until April 2013.

Table 2: Crude per capita rate of needle and syringe distribution by region, WA, 2004 to 2013

Year	Region								
	Metropolitan	Goldfields	Great Southern	Kimberley	Midwest	Pilbara	South West	Wheatbelt	WA (Total)
Crude per capita rate of needle and syringe distribution									
2004	2.00	2.31	0.59	0.94	1.73	1.71	1.62	0.33	1.85
2005	2.19	2.17	0.53	0.60	1.52	1.64	1.56	0.30	1.97
2006	2.27	1.99	0.61	0.95	1.69	2.20	1.65	0.27	2.07
2007	2.20	2.54	0.55	0.97	1.38	2.37	1.60	0.37	2.02
2008	2.09	2.75	0.39	0.75	1.70	1.75	1.34	0.35	1.91
2009	2.00	2.36	0.48	0.58	1.20	2.07	1.15	0.20	1.80
2010	1.93	2.90	0.49	0.57	1.68	1.19	1.43	0.19	1.77
2011	1.90	3.07	0.87	0.56	2.09	1.31	1.79	0.31	1.81
2012	2.00	3.38	1.03	0.84	2.66	1.55	2.07	0.34	1.95
2013	1.97	2.31	1.53	1.14	3.38	2.04	2.42	0.51	1.98

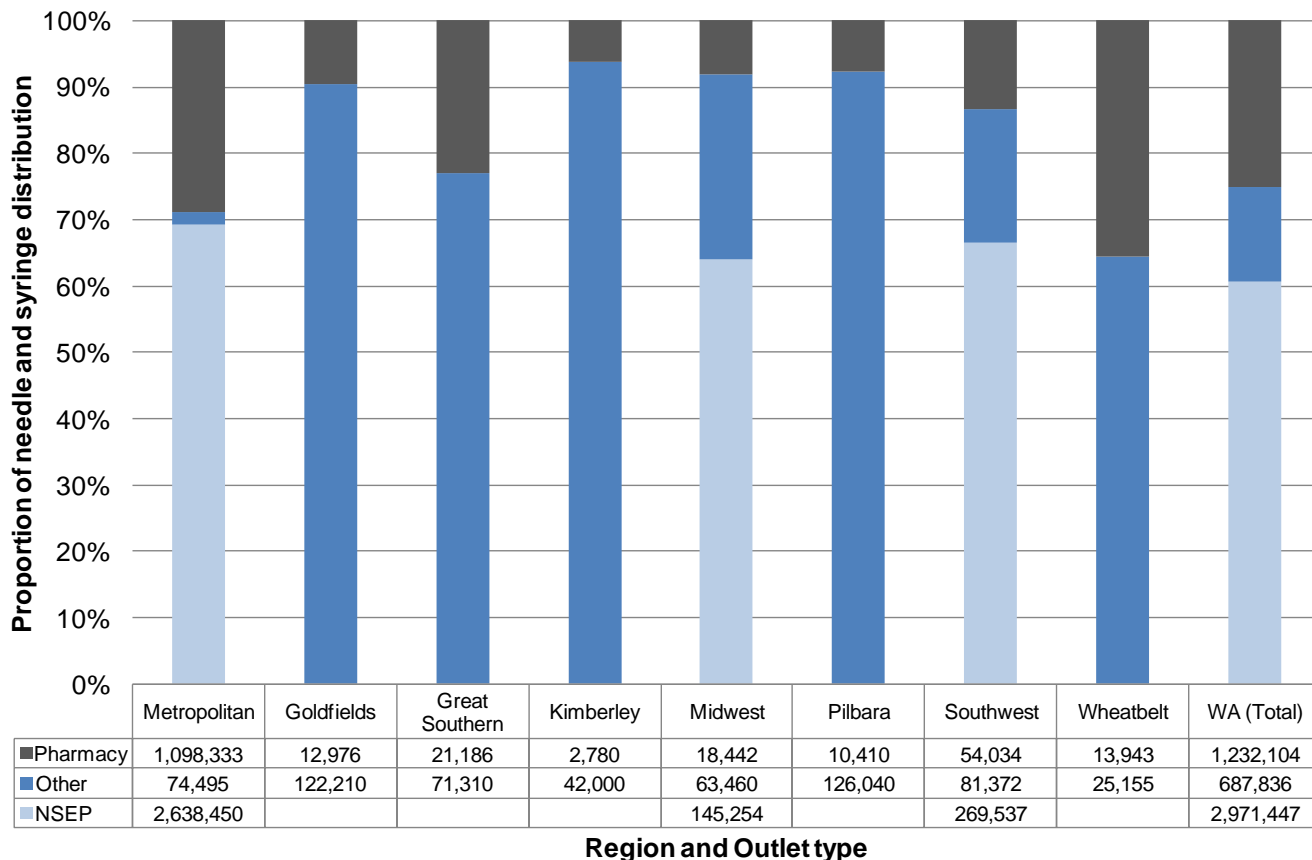
The crude rate of needle and syringe distribution in the Metropolitan area remained relatively stable at around 2.0 needles and syringes per capita per year over the previous ten-year period, while the rate in the non-Metropolitan area increased from 1.3 needles and syringes per capita in 2004 to 2.0 needles and syringe per capita in 2013. In 2013, for the first time in the previous ten-year period, the non-Metropolitan rate matched the Metropolitan rate (2.0 per capita) (Figure 2). These per capita rates are comparable with 2013 rates calculated nationally: 1.6 for major cities, 1.9 for regional/remote areas, and 1.7 Australia-wide.⁵

The Wheatbelt region consistently had the lowest crude rate of needle and syringe distribution per capita over the previous ten-year period. In 2004, and from 2007 to 2012, the Goldfields region had the highest crude rate of needle and syringe distribution per capita. The Metropolitan area had the highest rate in 2005 and 2006, while most recently, in 2013, the Midwest region had the highest rate.

⁵ Iversen, J. *NSP in urban, regional and remote Australia – distribution models and viral hepatitis prevention coverage*. Paper presented at the Australasian Viral Hepatitis Conference, Alice Springs, September 2014.

Distribution by region and outlet type

Figure 3: Number and proportion of needles and syringes distributed by region and outlet type, WA, 2013



In 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.



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