

# Prevalence and correlates of Hepatitis C Among Attendees at New Zealand Needle Exchanges: Results of the 2013 Seroprevalence Survey

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Substance Use and Policy Analysis

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# Disclosure of Interest Statement

Collaboration: This research was sponsored by the Needle Exchange Services Trust (NEST), National Office of the Needle Exchange Programme of New Zealand and the New Zealand Ministry of Health.

Dr Noller is a self-employed research consultant. He was contracted to NEST as project manager and coordinating investigator for the 2013 BBVNEX survey.

## Introducing the NZ NEP and the BBVNEX survey

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- NZ Needle Exchange initiated 1988, clients paying full price for equipment
- 1-4-1 free exchange of needles/syringes introduced 2004
- Currently approximately 200 sites (20 dedicated NEXs, 2 mobile services; remainder are pharmacies with various levels of service)
- Periodic surveys of NEP previous-month clients attending NEXs; Questionnaire & DBS/venous blood sample

Table 1: Comparison of BBVNEX Survey results across five surveys

	1997	1998	2004	2009	2013
Survey (weeks)	1	1	2	2	2.5
Sites	4	4	9	11	18
N=x*	223	247	403	475	689
Sex (male)	66%	66%	63%	61%	63%
Age mean (range)	29 (18-50)	29 (16-52)	36 (18-58)	38 (17-60)	40 (17-67)
Pakeha / European	84%	84%	74%	73%	81%
Māori	9%	1%	14%	15%	11%
HIV	0.9%	1.0%	0.3%	0.4%	0.2%
HCV	53%	45%	70%	52%	58%
New needle/syringe used each time	42%	48%	50%	70%	66%

\* Number of paired respondents submitting both questionnaires and blood samples

# Key findings from BBVNEX 2013

- Consistently low rate of HIV amongst NZ PWID; 0.2%
- **58% respondents HCV+ve, Non-significant (p=0.28) increase of HCV exposure between 2009-2013, when age adjusted**
- +ve HCV significantly associated with:
  - Age <25 v >55 (24% v 80%; OR=2.59)
  - Length injecting <5 yrs v ≤ 40 yrs (32% v 72%)
  - Imprisonment never v ever (OR=2.1)
  - Tattooing non-t v tattoo (OR=1.66, p=0.004)
  - Piercing (1<sup>st</sup> ev.) non-p v pierced (p=0.018)
  - (MMT) non-MMT v MMT (40% v 68%; OR=3.57)

## Sero-status knowledge and risk behaviour

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- Sexual behaviour: NO statistically significant relationship between non-condom use and HCV exposure
- Frequency of injecting: NO statistically significant relationship
- 16% (n=111) of respondents reporting they were HCV-ve, tested HCV+ve therefore either they misunderstood their test result or sero-converted

Table 2: Comparison of equipment sharing over five surveys

	1997	1998	2004	2009	2013
New N&S always	40.0%	48.0%	49.9%	69.7%	<b>66.1%</b>
Shared ANY equip.				37%	<b>31%</b>
<b>Sharing other equipment</b>					
Spoon	-	50%	25.3%	24.0%	<b>23.9%</b>
Tourniquet	-	31%	21.0%	17.4%	<b>16.7%</b>
Water	-	22%	11.3%	9.9%	<b>12.3%</b>
Dregs	-		13.4%	9.1%	<b>8.4%</b>
Drug taste			8.3%	6.9%	<b>7.9%</b>
Filters		23%	5.7%	6.9%	<b>6.7%</b>

Figure 1: Combined data set from 18 sites surveyed during the BBVNEX 2013

2013 NEST Seroprevalence Study																					
Participation	Seroprev 2013 data breakdown — Survey performance, risk behaviours and potential NEX strategy realignment																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
NEX	# of Codes allocated during STUDY	Participated by DATA SHEET	Participated by DBSP	PDF	INS (%)	AGE (mean)	AGE <25	HCV +VE (mean)	PRISON (mean)	Freq Injct ≥ daily	New N&S Every / Most	SHARED % Spoon	SHARED % Tourney	SHARED % Water	MMT current	MMT V/easy	MMT Difficult / V diff	MMT + injct M'done	MMT + injct M'phine	MMT + injct Benzos	HCV Believe -ve but EXPOSED N= (%)
NINE	36	25	25	25	9 (36)	36.36	12	56.3	48	40	48.0 / 44.0	36	24	20	48	58.3	4 / 16 (20)	83	25	8.3	15.5
ADIO East	45																				
ADIO South	27																				
ADIO West	7																				
<b>ADIO TOTAL</b>	<b>79</b>	<b>106</b>	<b>106</b>	<b>106</b>	<b>4 (3.7)</b>	<b>40.43</b>	<b>13.3</b>	<b>50.5</b>	<b>29.5</b>	<b>39.5</b>	<b>64.4 / 28.7</b>	<b>22.6</b>	<b>19.7</b>	<b>17.3</b>	<b>36.2</b>	<b>61.1</b>	<b>8.7 / 1/9 (10.6)</b>	<b>70</b>	<b>48.6</b>	<b>18.9</b>	<b>18 (16.9)</b>
NEWS (Hamilton)	53	55	55	55	0	40.25	8	58.5	45.5	38.2	66.7 / 27.8	24	20.3	9.2	63.6	58.4	20.7 / 3.7 (24.4)	94.2	54.2	20	8 (14.5)
NEMMS (Mount)	15																				
NETS (New Plymouth)	50	35	35	35	0	36.8	20.5	55.9	40	54.2	63.6 / 33.3	24.2	18.1	9	55.8	56.2	12.5 / 6.3 (18.8)	73.6	31.5	21	5 (14.2)
RANE	3	34	34	34	1 (2.9)	47.8	3.2	36.7	56.3	46.9	78.1 / 15.6	8.6	15.6	3.1	54.8	48.4	6 / 15.1 (21.1)	89.4	35.2	23.5	6 (17.6)
Napier	31	30	30	30	2 (6.6)	45.7	3.3	53.6	43.3	46.6	58.6 / 31.0	17.2	10.3	10.3	43.8	60	16.6 / 6.6 (23.2)	92.3	46.1	7.6	5 (16.6)
Palmerston North	60	60	60	60	0	38.8	1.6	55.9	41.7	46.6	51.7 / 41.4	13.5	11.8	15.25	63.7	54.5	22.2 / 5.4 (27.6)	89.1	24.3	8.1	8 (13.3)
Wellington	70	75	75	75	1 (1.3)	38	9.7	56.2	37.8	46.7	66.7 / 28.0	21.3	20	12	45.9	52.7	31.9 / 2.7 (34.6)	85.2	41.1	14.7	12 (16)
NICHE	35	31	31	31	2 (6.4)	38.8	6.6	57.1	45.2	42	70.0 / 20.0	29	9.6	23.8	55.1	26.6	16.6 / 46.6 (63.2)	87.5	37.5	25	6 (19.3)
RWC	123																				
New Brighton RWC	21																				
<b>RWC TOTAL</b>	<b>144</b>	<b>107</b>	<b>107</b>	<b>107</b>	<b>2 (1.8)</b>	<b>40.86</b>	<b>5.8</b>	<b>70.2</b>	<b>48.6</b>	<b>54</b>	<b>77.4 / 20.7</b>	<b>30</b>	<b>14.1</b>	<b>15</b>	<b>39.4</b>	<b>43.5</b>	<b>21.7 / 14.8 (36.5)</b>	<b>63.4</b>	<b>58.5</b>	<b>21.9</b>	<b>17 (15.8)</b>
West Coast RWC	0	30	30	30	1 (3.3)	40.5	3.3	69	53.3	66.7	86.7 / 13.3	30	10	10	44.8	50	33 / 10 (43)	61.5	61.5	46.1	4 (13.3)
NEXT (Timaru)	30	35	35	35	4 (11.4)	41.7	0	82.1	62.9	40	54.5 / 39.4	30.3	15.1	9	45.4	63.6	15.1 / 3 (18.1)	93.3	33.3	13.3	4 (11.4)
DIVO	50	55	54	55	0	40.21	13.7	51.9	36.4	42.7	70.4 / 24.1	20.3	18.5	1.8	41.8	78.1	10.9 / 5.4 (16.3)	86.9	13	0	7 (12.9)
SHRP	23	25	25	25	2 (8.0)	40.75	8.3	54.1	47.5	52.5	75.0 / 20.0	20	28	16	56.5	32	36 / 5.7 (41.7)	80.9	33.3	4.7	8 (32)
	<b>659</b>	<b>703</b>	<b>702</b>	<b>703</b>			<b>7.80714</b>		<b>45.4286</b>							<b>53.1</b>		<b>82.1643</b>	<b>38.7929</b>		<b>16.65</b>

Note: 718 surveys were returned, so records submitted by NEX must be incomplete.

Bottom line: We can do better!



# The Future

- Implications for NZ NEP of future developments
- New DAA's – “A game changer!”
- Partnerships between community organisations (NEXs) and HCV specialist clinicians /Gastro units
- POCT – targeted testing

# Acknowledgements

- Conference organisers
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## Report:

Noller, G. & Henderson, C. (2014). *Report of the National Needle Exchange Blood-borne Virus Seroprevalence Survey [BBVNEX2013] to the New Zealand Ministry of Health*. Unpublished report to the Ministry of Health. Wellington: New Zealand

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