

Enhanced surveillance of blood borne viruses in drug users in Wales

Annual report 2014

Public Health Wales assesses trends in the rates of blood borne viral hepatitis and HIV in people who inject drugs (PWID) living in Wales using data collected voluntarily from clients of substance misuse services in Wales undergoing diagnostic testing.

KEY POINTS

- There is evidence that transmission of hepatitis C is increasing amongst people who inject drugs (PWID) living in Wales. Changes in the prevalence of blood borne viruses in younger injectors and new initiates is a marker for recent transmission. Amongst clients of substance misuse services aged under 25 years who reported injecting drugs, the percentage positive for HCV has increased from 8% (4/53) in 2012 to 16% (8/49) in 2013 to 20% (9/45) in 2014 (Figure1, Table 2b). Amongst clients who reported a history of injecting drugs for 2 years or less and who were tested for HCV, the percentage positive for HCV was 9% (8/91) in 2012, 16% (17/104) in 2013, and 18% (18/99) in 2014.
- Mephedrone injecting is an emerging risk for blood borne viruses. In 2014, 28% (12/43) of M-CAT/ Mephedrone injectors were positive for hepatitis C.
- Hepatitis B prevalence is low but may also be increasing. 1% (6/620) of clients who were tested for HBV surface antigen in 2014 were positive, compared to 0.5% (3/634) and 0.4% (1/253) in 2013 and 2012 respectively (Table 2b).
- HIV transmission in PWID in Wales remains low. In 2014, none of the 800 individuals tested for HIV antibody were positive.
- Whilst data from this surveillance scheme are useful in monitoring trends, the data should be interpreted with caution as numbers of people tested is small and participation in the scheme varies greatly across health boards.

Reporting to the scheme

A total of 3667 completed forms were received by Public Health Wales for attendances between 2011 and 2014 (Table 1). These forms corresponded to 3596 individuals seen by substance misuse services in Wales. For 2014, 855 surveillance forms were received for 828 individuals. Participation in the scheme varies greatly across health boards (Table1).

Positivity rates

Of the 828 individuals seen in 2014, 815 were tested for HCV antibody, 800 were tested for HIV antibody, and 620 were tested for HBV surface antigen (Table 2).

The overall HCV positivity rate in 2014 was 19% (152/815). Whilst 0.8% (2/260) of the never-injectors tested were positive for HCV, the positivity rate amongst those who reported a history of injecting drugs was 28% (150/538) (Table 2).

The HCV positivity rate amongst 2014 clients who reported having been prescribed opiate substitution therapy (OST) in the previous 12 months was 23% (104/450), 13% (45/349) in those who had not been prescribed OST, and 19% where this information was unknown (3/16). Amongst 546 individuals reporting having ever injected, the HCV prevalence in those that were prescribed opiate substitution therapy (OST) in the previous 12 months was 29% (103/359) and 26% (44/169) in those who had not been prescribed OST.

Trends in younger clients, and those with a shorter injecting history, may reflect trends in recently acquired infection (incidence) (Figure 1, Table 2b). Amongst the clients aged under 25 years who reported injecting drugs and who were tested for HCV, the percentage positive for HCV has been increasing since the second half of 2012. Whilst in 2012 it was 8% (4/53), in 2013 it was 16% (8/49) and 20% (9/45) in 2014. Similarly, amongst the clients who reported a history of injecting drugs for 2 years or less and who were tested for HCV, the percentage positive for HCV was 9% (8/91) in 2012, 16% (17/104) in 2013, and 18% (18/99) in 2014. These results should be interpreted with caution due to small numbers. Amongst the clients who were tested for HCV and who reported injecting steroids in the last 12 months, 30% (18/60) were positive for HCV in 2011, 8% (5/59) in 2012, 14% (10/74) in 2013, and 19% (6/32) in 2014. Results should be taken with caution due to small numbers.

In mid-2014 a new version of the questionnaire was introduced which collected data on the use of M-CAT/ Mephedrone. Of the 167 clients who reported injecting drugs and were asked about their use of M-CAT/ Mephedrone, 164 were tested for HCV. The HCV positivity rate according to M-CAT/ Mephedrone use was 28% in users (12/43), 18% in non users (18/99), and 27% in those for whom this information was not known (6/22). Again, results should be taken with caution due to small numbers.

In 2014, none of the 800 individuals tested for HIV antibody had a positive result. In previous years, only 2 individuals have tested positive for HIV, one in 2012 and one in 2013. The 2013 case was previously known to be HIV positive.

Recording of the HBV surface antigen test, which indicates current infection, has been available since 2012. In 2014, 1% (6/620) of clients who were tested for HBV surface antigen were positive (Table 2), compared to 0.5% (3/634) and 0.4% (1/253) in 2013 and 2012 respectively (Table 2b).

Drug history

Of the 828 individuals seen in 2014 there were 809 individuals for whom injecting history was known, 67% (n=546) of these reported having ever injected drugs. Clients who reported having ever injected drugs were most frequently men, born in the UK, and had a median age of 35 years. Where recorded, 27% (149/542) reported being homeless in the previous year, 60% (316/531) reported having previously spent time in prison, and 19% (101/523) reported injecting drugs for 2 years or less (Table 3). Fifty-two percent (272/523) reported injecting drugs for more than 10 years.

Regarding drugs reported as being used in the previous year by clients seen in 2014 who reported ever injecting drugs (n=546), 69% reported injecting heroin, 14% crack cocaine, 10% crack and heroin combined, 6% steroids or image enhancing drugs, and 35% amphetamines (Table 4). For comparison, in 2013, of those who reported injecting drugs (n=682), 68% had injected heroin in the previous year, 21% crack cocaine, 18% crack and heroin combined, 11% steroids or image enhancing drugs, and 35% amphetamines. Between 2012 and 2014, the percentage of those who had injected crack in the previous year decreased from 32% to 14%. Similarly, the percentage of those injecting crack and heroin combined decreased from 26% to 10% (Table 4b).

In 2014, 167 individuals who reported ever injecting drugs were asked about their use of M-CAT/ Mephedrone through a new version of the questionnaire, of which 26% reported having used it in the previous year (Table 4).

The median age of clients who reported ever injecting drugs has remained stable at around 35 years of age since the beginning of the scheme. In 2014, the median age according to drugs used in the previous year was: 37 for crack and heroin combined, 36 for crack, 35 for heroin, 34 for amphetamines and steroids, and 33 for M-CAT/ Mephedrone.

Where recorded (n=812), in 2014, 57% of all clients reported that they had been prescribed opiate substitution therapy in the previous 12 months (Table 4).

Results

Table 1: Number of individuals for whom a form was submitted by year and LHB of the service*

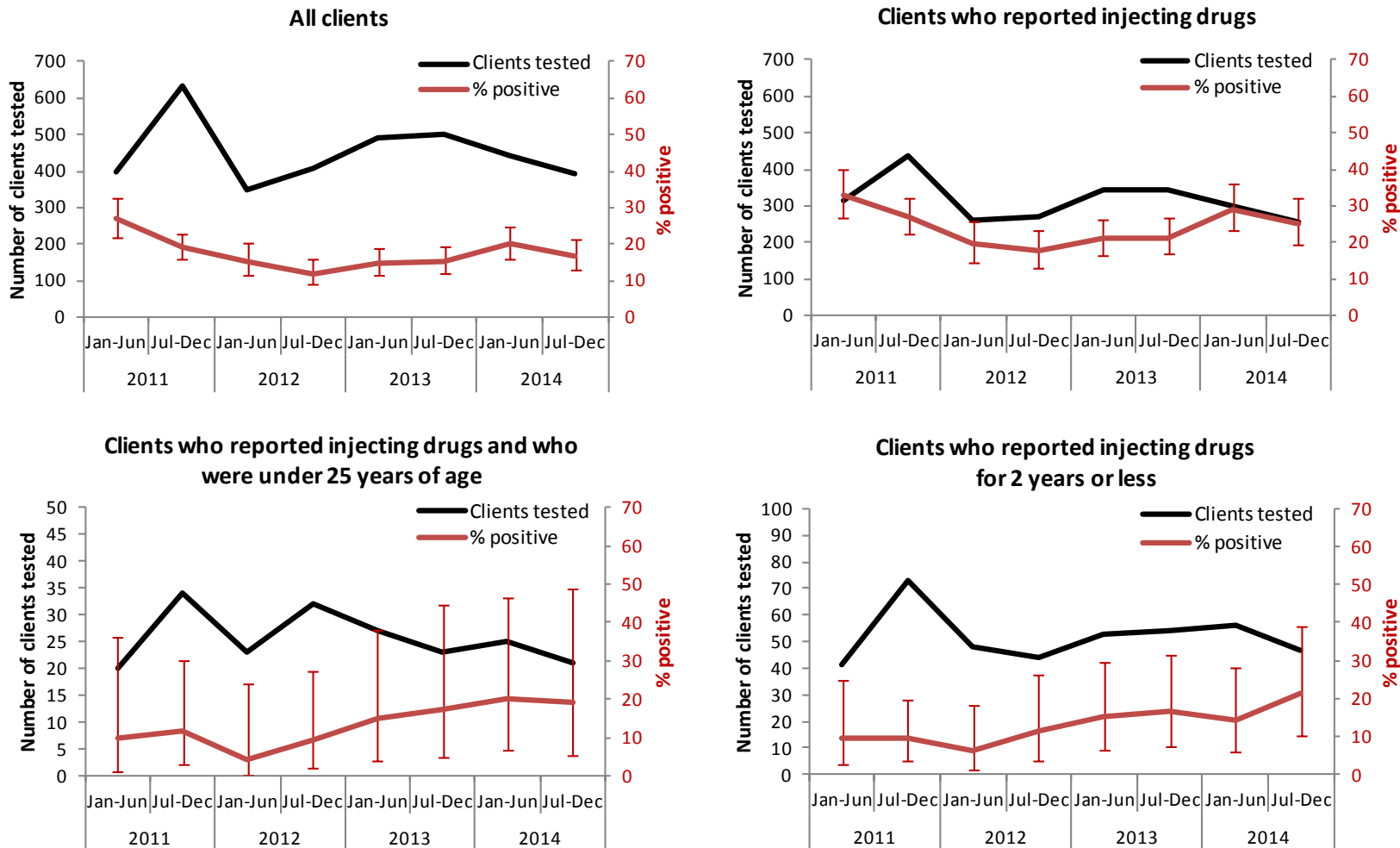
Service HB	2011	2012	2013	2014	Total	Clients with a form in 2014 per 100,000 population
Abertawe Bro Morgannwg	23	2	0	0	25	4.8
Aneurin Bevan	383	333	330	244	1290	222.3
Betsi Cadwaladr	457	263	320	224	1264	182.1
Cardiff & Vale	59	25	50	87	221	45.9
Cwm Taf	4	31	59	3	97	32.8
Hywel Dda	86	90	213	250	639	166.4
Powys	12	8	20	20	60	45.2
Wales	1024	752	992	828	3596	116.3

*As at 20/03/2015

Notes:

- i) 11 forms were excluded due to clients declining to participate, 13 due to missing date of attendance, and a further 67 forms were excluded which did not report tests results for any BBV and was therefore unknown whether any test had actually been performed. The number of forms is expected to increase as further forms are received, especially for 2014.
- ii) Population estimates for mid-2014 obtained from StatsWales

Figure 1: Number of individuals for whom a form was submitted and tested for HCV, by 6 month period, and the percentage of which were positive, 2011-2014*. Error bars represent 95% CI (Poisson, exact)



*As at 20/03/2015

Notes:

- i) Numbers may change as new forms are received
- ii) If an individual was known to have been tested more than once during a 6 month period, only the last form within that period was considered. If an individual was known to have been tested in different periods, it contributed to the counts of all the periods when they were tested
- iv) Not all individuals were tested for HCV. Percentages are based on the number of clients tested in each period.

Table 2: Percentage of individuals for whom a form was submitted and tested who were positive for a BBV, 2014*

Service HB	Number of clients	HCV Ab				HIV Ab	HBV sAg‡
		All clients (n= 815)	Clients who inject drugs (n= 538)	Clients who inject drugs, aged <25yrs (n=45)	Clients injecting for ≤2yrs (n=99)	All clients (n= 800)	All clients (n=620)
Abertawe Bro Morgannwg	<10	-	-	-	-	-	-
Aneurin Bevan	244	16%	23%	10%	23%	0%	1%
Betsi Cadwaladr	224	25%	36%	25%	15%	0%	1%
Cardiff & Vale	87	33%	40%	57%	30%	0%	4%
Cwm Taf	<10	-	-	-	-	-	-
Hywel Dda	250	10%	18%	7%	5%	0%	0%
Powys	20	15%	17%	0%	0%	0%	0%
Wales	828	19%	28%	20%	18%	0%	1%

*As at 20/03/2015

‡ Recording of the HBV surface antigen test has been available since 2012, and it indicates whether or not an individual is currently infected with HBV

Notes:

- Numbers may change as new forms are received
- If an individual was known to have been tested more than once during 2014, only the last form within 2014 was considered.
- Amongst the clients seen in 2014, 19 were of unknown injecting history and 263 reported never injecting drugs, and 546 reported ever injecting drugs
- Not all individuals were tested for all infections. Percentages are based on the number of clients tested, indicated in each column.
- Some cells have been suppressed due to small numbers (-)

Table 2b: Percentage of individuals for whom a form was submitted and tested who were positive for a BBV, 2011-2014*

Year	Number of clients	HCV Ab				HIV Ab	HBV sAg‡
		All clients (n= 3571)	Clients who inject drugs (n= 2485)	Clients who inject drugs, aged <25yrs (n=201)	Clients injecting for ≤2yrs (n=407)	All clients (n= 3449)	All clients (n=1509)
2011	1024	22%	29%	11%	10%	0.0%	-
2012	752	14%	19%	8%	9%	0.1%	0.4%
2013	992	15%	21%	16%	16%	0.1%	0.5%
2014	828	19%	28%	20%	18%	0.0%	1.0%
Total	3596	18%	25%	13%	13%	0.1%	0.7%

*As at 20/03/2015

‡ Recording of the HBV surface antigen test has been available since 2012, and it indicates whether or not an individual is currently infected with HBV

Notes:

- Numbers may change as new forms are received
- If an individual was known to have been tested more than once in a given year, only the last form within that year was considered.
- Amongst the 3596 clients seen between 2011- 2014, 119 were of unknown injecting history, 975 reported never injecting drugs, and 2502 reported ever injecting drugs
- Not all individuals were tested for all infections. Percentages are based on the number of clients tested, indicated in each column.
- Some cells have been suppressed due to small numbers (-)

Table 3: Characteristics of individuals for whom a form was submitted who reported ever injecting drugs, 2014*

Service HB	All clients		Clients who reported injecting drugs					
	Number	Number	% male (n=540)	Median age (range) (n=492)	% born in UK (n=542)	% homeless in previous year (n=542)	% been in prison previously (n=531)	% injecting for ≤2yrs (n=523)
Abertawe Bro Morgannwg	<10	<10	-	-	-	-	-	-
Aneurin Bevan	244	175	79%	35 (21-54)	98%	26%	70%	18%
Betsi Cadwaladr	224	154	74%	38 (19-62)	94%	26%	50%	18%
Cardiff & Vale	87	73	67%	31 (19-57)	96%	44%	64%	30%
Cwm Taf	<10	<10	-	-	-	-	-	-
Hywel Dda	250	130	71%	34 (18-59)	98%	19%	55%	17%
Powys	20	12	75%	30 (18-50)	92%	58%	58%	25%
Wales	828	546	74%	35 (18-62)	96%	27%	60%	19%

*As at 20/03/2015

Notes:

- i) Numbers may change as new forms are received
- ii) If an individual was known to have been tested more than once during 2014, only the last form within 2014 was considered.
- iii) Amongst the clients seen in 2014, 19 were of unknown injecting history, 263 reported never injecting drugs, and 546 reported ever injecting drugs
- iv) The percentages provided are based on the number of clients for whom the variable of interest was reported, indicated in each column.
- v) Some cells have been suppressed due to small numbers (-)

Table 4: Percentage of individuals for whom a form was submitted who reported opiate substitution therapy (OST) within the last 12 months, the percentage reporting ever injecting drugs and, of those who injected drugs, the percentage of clients who reported using each kind of drug within the last 12 months, 2014*

Service HB	All clients			Clients who reported injecting drugs						
	Number clients	% receiving OST (n=812)	% injecting drugs (n=809)	Number clients	% heroin (n=546)	% crack cocaine (n=546)	% crack and heroin combined (n=546)	% steroids (n=546)	% amphetamines (n=546)	% M-CAT/Mephedrone‡ (n=167)
Abertawe Bro Morgannwg	<10	-	-	-	-	-	-	-	-	-
Aneurin Bevan	244	84%	75%	175	82%	13%	6%	7%	43%	33%
Betsi Cadwaladr	224	58%	69%	154	63%	24%	19%	6%	26%	0%
Cardiff & Vale	87	60%	86%	73	75%	11%	10%	3%	44%	40%
Cwm Taf	<10	-	-	-	-	-	-	-	-	-
Hywel Dda	250	28%	53%	130	54%	6%	3%	6%	31%	34%
Powys	20	70%	60%	12	75%	25%	17%	8%	8%	N/A
Wales	828	57%	67%	546	69%	14%	10%	6%	35%	26%

*As at 20/03/2015

‡ M-CAT/Mephedrone data has been collected since mid-2014 through a new version of the questionnaire, for 167 clients.

Notes:

- i) Numbers may change as new forms are received
- ii) If an individual was known to have been tested more than once during 2014, only the last form within 2014 was considered.
- iii) Amongst the clients seen in 2014, 19 were of unknown injecting history, 263 reported never injecting drugs, and 546 reported ever injecting drugs
- iv) The percentage of clients receiving OST and the percentage of clients injecting drugs are based on the number of clients for whom the variable of interest was reported, indicated in each column. The percentage of clients who reported using each kind of drug is based on the number of clients queried.
- v) Some cells have been suppressed due to small numbers (-)

Table 4b: Percentage of individuals for whom a form was submitted who reported opiate substitution therapy (OST) within the last 12 months, the percentage reporting ever injecting drugs and, of those who injected drugs, the percentage of clients who reported using each kind of drug within the last 12 months, 2011-2014*

Year	All clients			Clients who reported injecting drugs						
	Number clients	% receiving OST (n=3529)	% injecting drugs (n=3477)	Number clients	% heroin (n=2502)	% crack cocaine (n=2502)	% crack and heroin combined (n=2502)	% steroids (n=2502)	% amphetamines (n=2502)	% M-CAT/Mephedrone‡ (n=167)
2011	1024	74%	75%	746	67%	22%	20%	8%	28%	-
2012	752	66%	72%	528	74%	32%	26%	11%	39%	-
2013	992	65%	72%	682	68%	21%	18%	11%	35%	-
2014	828	57%	67%	546	69%	14%	10%	6%	35%	26%
Total	3596	66%	72%	2502	69%	22%	18%	9%	34%	26%

*As at 20/03/2015

‡ M-CAT/Mephedrone data has been collected since mid-2014 through a new version of the questionnaire, for 167 clients.

Notes:

- i) Numbers may change as new forms are received
- ii) If an individual was known to have been tested more than once in a given year, only the last form within that year was considered.
- iii) Amongst the 3596 clients seen between 2011- 2014, 119 were of unknown injecting history, 975 reported never injecting drugs, and 2502 reported ever injecting drugs
- iv) The percentage of clients receiving OST and the percentage of clients injecting drugs are based on the number of clients for whom the variable of interest was reported, indicated in each column. The percentage of clients who reported using each kind of drug is based on the number of clients queried.
- v) Some cells have been suppressed due to small numbers (-)

Notes on methods

Data presented in this report are for clients seen by substance misuse services in 2014. Data are included only for those clients for whom a surveillance form was completed and sent to Public Health Wales. Figure 1 contains data from 2011 to 2014 by 6 months periods. Eleven forms were excluded due to clients declining to participate, and a further 67 forms were excluded which did not report tests results for any BBV and it was therefore unknown whether any test had actually been performed. The number of forms is expected to increase as further forms are received, especially for 2014. Data on sample type has been received since the introduction of a new form in 2012. Still, the sample type was unknown for 74% of forms in 2012, 47% in 2013, and 17% in 2014. The percentage of forms known to be from DBS samples was 22% in 2012, 44% in 2013 and 72% in 2014, and the percentage of forms from venepuncture samples was 4%, 9% and 11% in 2012, 2013, and 2014 respectively.

Clients can be tested more than once and so there may be more than one form for a single client, linked through a unique number. If an individual was known to have been tested more than once during a time period, only the last form within that time period was considered. If an individual was known to have been tested in different periods, they contributed to the counts within all the periods they were tested. It is possible that forms corresponding to the same individual are not linked due to individuals accessing several points of care.

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Data based on forms received as at 20th March 2015