

Snohomish Health District Viral Hepatitis Prevention and Outreach (VHO) January 2010 – December 2010

Introduction:

The VHO program provides services to persons who are current or past intravenous drug users (IDU). Intravenous drug users are at high risk for contracting viral hepatitis. Services include viral hepatitis counseling, testing, education and vaccinations. A total of 216 clients, with 420 service encounters, were served by the VHO program January through December 2010.

Demographics:

Tables 1-6 show the demographic information for the 2010 VHO clients. They include age, gender, race, type of medical insurance, employment, and housing.

Clients served through the VHO program, January – December 2010, tended to be younger adults with a mean age of 33.92 (median 32) (table 1). More men than women participated in the program (table 2). Clients were predominantly white with a few African American, Latino and other races seen (table 3).

VHO clients in 2010 typically did not have any medical insurance, were unemployed, and did not own a home (tables 4-6 and graphs 1 and 2).

Table 1: Age summary of 2010 VHO clients

Number of observations	Mean	Range
216	33.92	16-57

Table 2: Gender distribution of 2010 VHO clients

Gender	Frequency	Percent (%)
Male	129	59.72
Female	87	40.28
Total	216	100.0

Table 3: Race distribution of 2010 VHO clients

Race	Frequency	Percent (%)
Caucasian	195	90.28
African American	7	3.24
Latino	7	3.24
Native American	1	0.46
Other	6	2.78
Total	216	100.0

Table 4: Type of medical insurance coverage for 2010 VHO clients

Type	Frequency	Percent (%)
None	155	71.76
Medicaid	38	17.59
Medicare	3	1.39
Private	19	8.80
Unknown	1	0.46
Total	216	100.0

Graph 1: Type of medical insurance coverage for 2010 VHO clients

Type of Medical Insurance Coverage for 2010 VHO Clients

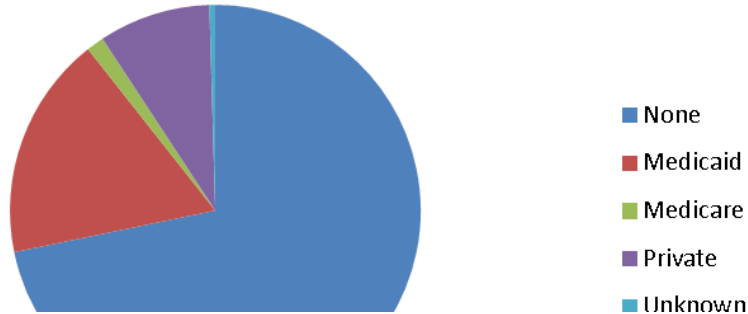


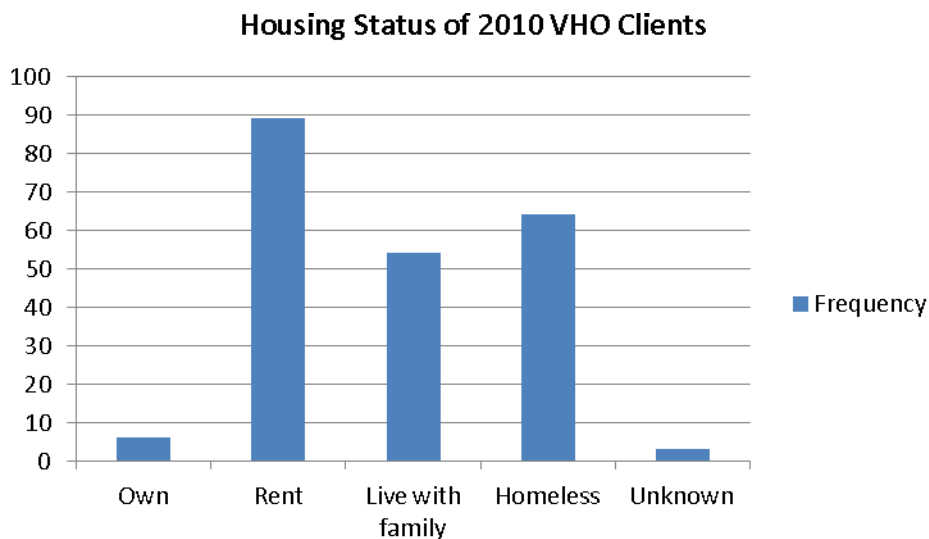
Table 5: Employment status of 2010 VHO clients

Employment status	Frequency	Percent (%)
Employed	25	11.57
Unemployed	178	82.41
Unknown	13	6.02
Total	216	100.0

Table 6: Housing status of 2010 VHO clients

Type of housing	Frequency	Percent (%)
Own	6	2.78
Rent	89	41.20
Live with family	54	25.00
Homeless	64	29.63
Unknown	3	1.39
Total	216	100.0

Graph 2: Housing status of 2010 VHO clients



Drug Usage in 2010 VHO Population:

Tables 7-17 describe the types of drugs and practices used by 2010 VHO clients.

The majority of VHO clients served in 2010 were recent intravenous drug users (table 7). The average duration of drug use was 41.78 months with a median of 24 months (table 8). A large percentage of clients injected either heroin or methamphetamines (table 9). The percent of VHO clients using heroin or methamphetamines has an inverse relationship over the last 5 years. As the number of heroin users has gone up the number of methamphetamine users has gone down (graph 3).

Among 2010 VHO clients seventy-four percent had shared drug paraphernalia, seventy-two percent had used secondary exchange of needles and eighty percent had reused drug works (tables 10-12). Most clients had used pharmacies as a way to obtain syringes (table 13). The average number of times the needle exchange was used was thirty-two times with a range of 0-520 time (table 14). This is lower than in previous years in part due to the decreased needle exchange services (graph 4).

Clients served through the VHO program were likely to have participated in a drug treatment program at least once. Only thirty percent of clients had never gone to drug treatment (table 15). Almost a quarter of 2010 VHO clients had participated in drug treatment three or more times.

Nationally, over the last 2-3 years, there has been an increase of prescription drug abuse. Mid April 2010, the VHO program began collecting client data to reflect this new drug trend. Prescription drug abuse includes narcotics and amphetamines prescribed by a healthcare provider used for non-prescribed purposes by either the person to whom they were prescribed or by a person other than to which the drugs were prescribed. These data give some clue as to how many VHO clients may have started with prescription drug abuse before initiating IDU, and how prevalent prescription drug use is among VHO clients. One-third of VHO clients had abused prescription drugs (table 16). Among the sixty-seven clients that had used prescription drugs almost half of them obtained the drugs from the street (table 16a). The rest of the clients obtained prescription drugs from family and friends, their own prescription and from multiple sources. Prescription narcotics are looked upon as being a gateway to injection drug abuse, particularly with heroin.

Gang involvement was also tracked by the VHO program in 2010. Less than five percent of 2010 VHO clients were involved with gang members in some way (table 17). While the vast majority of VHO clients are not currently involved with gangs, this is an important piece of information to track for future trends.

Table 7: Frequency of 2010 clients using injection drugs in the 12 months prior to VHO services

Use in the last 12 months	Frequency	Percent (%)
Yes	148	68.52
No	65	30.09
Unknown	3	1.39
Total	216	100.0

Table 8: Average duration of injection drug use in 2010 VHO clients

Number of observations	Mean (in months)	Range (in months)
216	41.78	1-360

Table 9: Type of injection drug used by 2010 VHO clients

Type	Frequency	Percent (%)
Methamphetamine	58	26.85
Cocaine	22	10.19
Heroin	120	55.56
Speedball	13	6.02
Other	3	1.39
Total	216	100.0

Graph 3: Percent of heroin and methamphetamine use among VHO clients 2006-2010

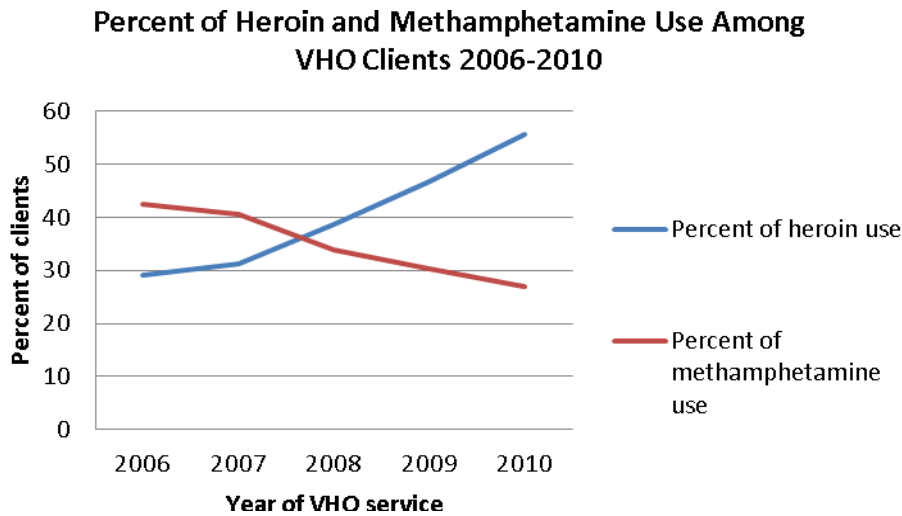


Table 10: Number of 2010 VHO clients that shared drug paraphernalia

Shared drug paraphernalia	Frequency	Percent (%)
Yes	160	74.07
No	46	21.30
Unknown	10	4.63
Total	216	100.0

Table 11: Number of 2010 VHO clients that used secondary exchange (i.e.friends, buy on the street) drug paraphernalia

Used secondary exchange	Frequency	Percent (%)
Yes	156	72.22
No	47	21.76
Unknown	13	6.02
Total	216	100.0

Table 12: Number of 2010 VHO clients that reuse drug paraphernalia

Reuse works	Frequency	Percent (%)
Yes	173	80.09
No	37	17.13
Unknown	6	2.78
Total	216	100.0

Table 13: Number of 2010 VHO clients that used a pharmacy to obtain syringes

Used pharmacy	Frequency	Percent (%)
Yes	120	55.56
No	82	37.96
Unknown	14	6.48
Total	216	100.0

Table 14: Average number of times 2010 VHO clients used the needle exchange

Number of observations	Mean (number of times used)	Range
78	11.56	0-520

Graph 4: Mean number of times VHO clients used the needle exchange 2006-2010(funding for the Snohomish Needle Exchange was severely cut in 2009)

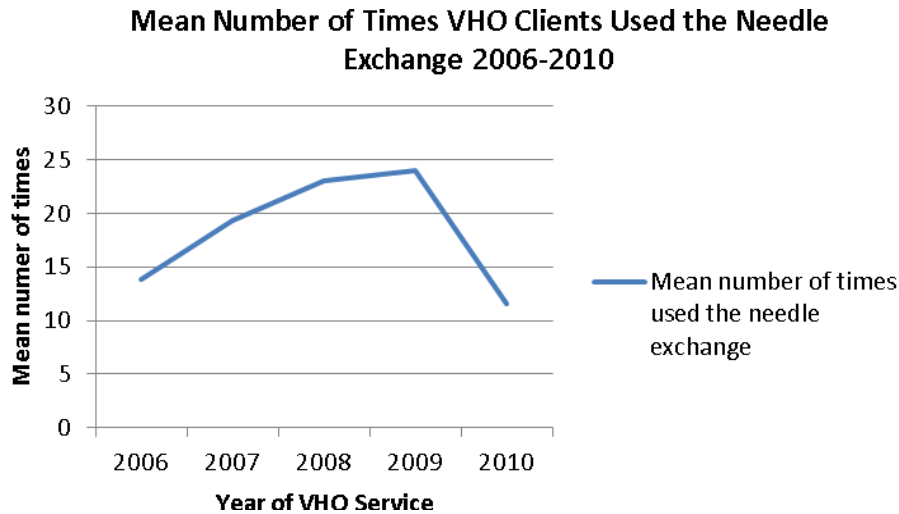


Table 15: Number of times 2010 VHO clients participated in drug treatment

Number of times in treatment	Frequency	Percent (%)
0	65	30.10
1-2	94	43.52
≥3	53	24.53
Unknown	4	1.85
Total	216	100.0

Table 16: Prescription drug abuse among 2010 VHO clients

Used prescription drugs for non-prescribed purpose	Frequency	Percent (%)
Yes	67	31.02
No	52	24.07
Unknown	97	44.91
Total	216	100.0

Table 16a: Where 2010 VHO clients obtained prescription drugs (n=67)

Where prescription drugs obtained	Frequency	Percent (%)
Home	0	0.00
Family/friends	12	17.91
Street	33	49.25
Own prescription	7	10.45
Multiple sources	15	22.39
Total	67	100.0

Table 17: Gang involvement among 2010 VHO clients

Type of gang involvement	Frequency	Percent (%)
Gang member	4	1.85
Purchased drugs from a gang member	1	0.46
Client knows a gang member	5	2.13
No involvement with gangs	202	93.52
Unknown	4	1.85
Total	216	100.0

VHO Screening Services:

Tables 18-24 describe VHO services during January to December 2010. These include year of original date of service, number of visits provided to individual clients, where service encounters occurred, screening services for viral hepatitis, and vaccinations provided.

Clients served by the VHO program in 2010 ranged from 1998 to 2010 for their original date of service (table 18). The majority of clients served in 2010 were new to the program. More than half of all clients seen had more than one service encounter (table 19). A large percentage of clients received services while in a correctional institution (table 20, graph 5). The Snohomish Health District clinic and the needle exchange were also common sites of service.

The prevalence of hepatitis A and hepatitis B were low among 2010 VHO clients (table 21). Hepatitis C was more prevalent than hepatitis A or B with sixty-five clients positive for hepatitis C

through an antibody test. (Note: confirmatory testing for hepatitis C is not done.) Of 147 VHO clients counseled and tested for HIV there were no positives.

The VHO program provided three hundred and seventy-three hepatitis A, B and Twinrix vaccines combined (table 22). Of the clients that were susceptible for both hepatitis A and B sixty-seven percent of clients received at least one Twinrix vaccine (table 23). Unfortunately, vaccine is not available for hepatitis C. Eighty-seven percent of clients who were screened were given their hepatitis testing results and counseled on their hepatitis C status. Five percent of 2010 VHO clients seroconverted from Hepatitis C negative to antibody positive while participating in the VHO program (table 24).

Table 18: Year of original date of service for 2010 VHO clients 1998-2010

Year of original service	Frequency	Percent (%)
1998	2	0.93
1999	2	0.93
2000	6	2.78
2001	7	3.24
2002	4	1.85
2003	1	0.46
2004	8	3.70
2005	6	3.70
2006	5	2.31
2007	7	3.24
2008	14	6.48
2009	15	6.94
2010	139	64.53
Total	216	100.0

Table 19: Number of service visits for 2010 VHO clients

Number of service visits	Frequency	Percent (%)
1	70	32.41
2	96	44.44
3	42	19.44
4	8	3.70
Total	216	100.0
A total of 420 service visits were completed for 216 clients		

Table 20: Site where 2010 VHO clients received services

Site	Frequency	Percent (%)
Corrections	78	36.11
Needle exchange	37	17.13
SHD clinic	56	25.93
THS (methadone clinic)	9	4.17
Denny Youth Center	11	5.09
Men's Mission	20	9.26
Other	5	2.31
Total	216	100.0

Graph 5: Site of VHO services in 2010

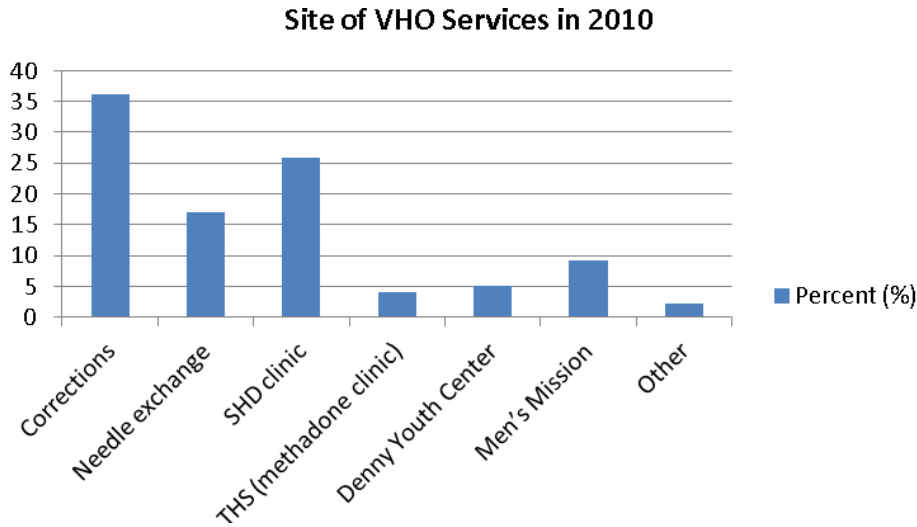


Table 21: Prevalence of hepatitis A, B, C and HIV among 2010 VHO clients

Lab Results	Positive (%)	Negative (%)	Not Done (%)	Unknown (%)
Anti-HAV	20.37 (44/216)	63.43 (137/216)	14.81 (32/216)	1.39 (3/216)
Anti-HBc	11.57 (25/216)	73.61 (159/216)	13.89 (30/13.89)	0.93 (2/216)
HBsAg	0.46 (1/216)	9.72 (21/216)	87.96 (190/216)	1.85 (4/216)
Anti-HCV	30.09 (65/216)	68.98 (149/216)	0.93 (2/216)	0.00 (0/216)
HIV	0.00 (0/216)	68.06 (147/216)	31.94 (69/216)	0.00 (0/216)

Table 22: Vaccination for HAV, HBV, tetanus/diphtheria (Td), and pneumonia among 2010 VHO clients

Vaccination	Dose 1	Dose 2	Dose 3	Total Vaccine
Hepatitis A	38	19	NA	57
Hepatitis B	55	47	38	140
Twinrix*	86	58	32	176

*Twinrix Vaccine: combination of hepatitis A and hepatitis B vaccine. Starting last quarter of 2008 Twinrix was provided by Washington State Department of Health for the VHO program. Other vaccines are provided on a sliding fee scale.

Table 23: Percent of 2010 VHO clients that have received HAV and HBV vaccines

Vaccination	Number susceptible	Dose 1 (%)	Dose 2 (%)	Dose 3 (%)
Hepatitis A	137	27.74 (38/137)	12.41 (19/137)	NA
Hepatitis B	159	34.59 (55/159)	29.56 (47/159)	23.90 (38/159)
Twinrix*	127	67.72 (86/127)	45.67 (58/127)	18.11 (23/127)
Hepatitis C	149	No vaccine currently available		

*The clients who are eligible/susceptible for Twinrix are negative for antibodies to both HAV and HBV. This is a subset of the number susceptible to HAV and HBV.

Table 24: Percent of 2010 VHO clients that seroconvert to positive Hepatitis C while participating in the program*

Seroconvert	Frequency	Percent (%)
Yes	11	5.09
No	35	21.30
Unknown	170	78.70
Total	216	100.0

* Please note, not all clients would have participated in the VHO program long enough to have been screened more than once. Rescreening is provided every 6 months for those clients eligible.

VHO Hepatitis C Positive Client Treatment:

Tables 25 and 26 describe the type of treatment and non-VHO medical follow-up that hepatitis C positive clients received.

Only eleven out of sixty-five hepatitis C positive clients were being followed by a primary care physician, and only one client was receiving treatment for his/her hepatitis C (table 25-26). Primary medical care and treatment for Hepatitis C is rare among VHO clients. The VHO program provides medical screening and education to a population that is not likely to receive services elsewhere. **Hepatitis C is a curable 'chronic' disease and annual mortality rates have surpassed those of HIV.**

Table 25: Number of 2010 VHO HCV positive clients (n=65*) being followed by a primary care physician

PCP follow-up	Frequency	Percent (%)
Yes	11	16.93
No	50	76.92
Unknown	4	6.15
Total	65	100.0

Table 26: Number of 2010 VHO HCV positive clients (n=65*) receiving treatment

Treatment	Frequency	Percent (%)
Yes	1	1.54
No	60	92.31
Unknown	4	6.15
Total	65	100.0

*Note: Not all HCV positive clients have confirmed disease or are chronic carriers.