2013 Syringe Exchange Program Evaluation Report

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The Hawai‘i State Department of Health began a pilot syringe exchange project in 1989 in response to the growing AIDS crisis. The project involved training ex-drug users and other persons knowledgeable about the drug using population to serve as peer educators for persons who injected drugs and thus were at high-risk for acquiring and/or transmitting HIV. In 1990, former Hawai‘i Governor John Waihee signed into law Act 280, enabling the Department of Health (DOH) to establish a two-year pilot Syringe Exchange Program (SEP). The first Hawai‘i SEP site was operated out of the Rubber Room in Honolulu by members of the Life Foundation; the largest and oldest AIDS organization in the Pacific. Following the two-year pilot period, during which the SEP’s safety and efficacy were assessed, the State Legislature authorized HRS §325-113(c) also known as Act 152, enabling the DOH to operate the SEP as long as necessary to accomplish its intended purposes: preventing the transmission of Human Immunodeficiency Virus (HIV), hepatitis B, hepatitis C (HCV), and other blood-borne pathogens; and providing people who inject drugs (PWID) with referrals to appropriate health and social services. Act 152 requires the DOH to appoint an oversight committee to monitor the progress of the SEP and to give recommendations to the DOH on ways to improve the SEP. Finally, Act 152 requires that a formal evaluation be conducted and a report submitted annually to the oversight committee to demonstrate effectiveness.

In 1993, the legislature named the Community Health Outreach Work Project (The CHOW Project) as the coordinating agency for the statewide SEP. By 1994, the CHOW Project extended the SEP services beyond O‘ahu to the islands of Kaua‘i, Maui, and Hawai‘i (the Big Island). The CHOW Project continues to operate the SEP and has expanded services to meet the growing needs of persons who inject drugs in Hawai‘i. In 1993, CHOW exchanged 35,365 syringes during its SEP year (October 1 – September 30) and 833,677 syringes where exchange during SEP2013.

The CHOW Project operates six mobile vans which cover each of Hawai‘i’s counties and provides a variety of services beyond syringe exchange. Outreach workers attempt to establish contact and trust with the target population in an effort to encourage safer behaviors among PWID. Activities include conducting health education, offering HIV and HCV counseling, testing and referral linkages to drug treatment and handing out harm reduction supplies. Currently, the Hawai‘i statewide SEP is one of the larger programs in the United States and was the first program in the U.S. to be fully state-funded to offer coordinated services statewide, and to provide payment for drug treatment services for participants.

**Methods and Data Sources**

The timeframe for the evaluation report (the SEP year) is January 1, 2013 through December 31st, which from here forward will be referred to as SEP2013.

The CHOW Project collects data through a variety of sources and maintains four databases: the Daily Log database which captures CHOW services and participant demographics; the Survey database which compiles data from the annual survey results; the Treatment Referral database which follows CHOW participants referred for drug treatment; and the Surveillance databases which include HIV and hepatitis C counseling and testing data. Data from these four sources are combined to create a picture of CHOW’s services and the participants that access them.

**Daily Logs**

Data from the Daily Logs includes operational and demographic information collected by CHOW staff each time a participant exchanges syringes or accesses harm reduction supplies. This
includes the number and type of syringes exchanged, the gender and ethnicity of the participant, and outreach activities such as giving out condoms. In order to protect participant confidentiality, the daily log information is based on visits to the SEP rather than individual participants. Thus, it is not possible to provide an exact count of the number of individual participants using the SEP. This database is the foundation for the data reported in the section on Syringe Exchange Program activity for the SEP year.

**Evaluation**

Given the limitations of this data and in order to obtain more detailed information regarding participants using the SEP, 100 research interviews were conducted in SEP2013 with randomly selected group of participants. These interviews include specific demographic, drug use, sexual behaviors and HIV/HCV risk data. The participants are paid a modest incentive for participating in these interviews and interviews are conducted in all four counties. While names are not collected, code numbers are generated so that initial and follow-up interviews from the same participant can be linked. The data on demographic characteristics, drug use, and HIV/HCV risk behaviors in this 2013 report are based on survey interviews conducted during this SEP year.

In order to obtain a better estimate of HIV and HCV prevalence among PWID accessing the SEP, CHOW included HIV and hepatitis C testing as a part of the annual evaluation. The HIV/HCV seroprevalence component of this study was incorporated and included in the SEP2013 survey.

In the SEP2013 the same 100 participants who were randomly selected to complete the survey were included in the HIV/HCV study. Participants were asked to contribute a small blood sample for the Clearview Complete HIV 1/2 Rapid HIV Antibody Test to test for HIV antibodies and the Oraquick HCV Rapid Antibody Test to test for HCV antibodies. For the first time participants were able to obtain their HIV/HCV status. To ensure confidentiality results were coded with the same client ID used on the interview, and no names were linked with the result. Test results were recorded and stored with no identifying information. Participation was voluntary and participants were free to decline learning their HIV/HCV status at the time of testing. One participant declined to learn their test results. Participants were also free to decline HIV/HCV testing as part of the research. No participants declined to participate in research testing.

**Program Effectiveness**

The Community Health Outreach Work (CHOW) Project is dedicated to serving individuals, families, and communities adversely affected by drug use, especially people who inject drugs, through a participant-centered harm reduction approach. CHOW works to reduce drug-related harms such as, but not limited to HIV, hepatitis B/C, and overdose. CHOW supports the optimal health and well-being of people affected by drug use throughout the State of Hawaii.

To ascertain the effectiveness of the SEP, it is important to look at cases of HIV and AIDS among PWID in Hawai‘i and to compare this data with national HIV/AIDS surveillance. Historically, both national and local data has been available for AIDS cases but not HIV because HIV was not a reportable condition for the first two decades of the epidemic. This creates limitations because some persons with HIV may take many years to progress to an AIDS diagnosis (if at all) – especially in the age of combination anti-retroviral therapy and thus the picture created by looking at AIDS cases may not reflect the current trends in HIV infection. Despite these limitations, AIDS data can help determine the epidemiology of HIV/AIDS – especially when it comes to risk factors linked to acquisition of the disease.
As of December 31, 2011, there have been 1,142,714 reported cases in the United States that met the criteria established by the Centers for Disease Control and Prevention (CDC) for the diagnosis of AIDS. Since the identification of AIDS, 617,025 deaths have been attributed to this disease in the United States. These deaths represent fifty four present (54%) of all cases of AIDS. Approximately one third of all U.S. cases have been associated with injection drug use, either occurring among people who inject drugs (PWID), the sexual partners of PWID, or the children of PWID. In Hawai‘i, only thirteen point nine percent (13.9%) of AIDS cases are related to injection drug use. This relatively low percentage, less than half the national average, can presumably be credited to the proactive efforts to implement early intervention HIV prevention programs, including the SEP, for PWIDS in Hawai‘i.

In alignment with the nationwide mandate, Hawai‘i began reporting HIV by name in 2008, resulting in more accurate HIV data (including AIDS cases) and providing a more precise picture of those living with HIV in Hawai‘i. Additionally, the data will demonstrate CHOW’s effectiveness by finding new infections (incidence) of HIV per among PWID. According to the Hawai‘i Department of Health, the percentage of new HIV/AIDS diagnoses related to injection drug use is lower than the cumulative average of mentioned above with four cases (6%) of AIDS diagnosed in 2011 and three cases (9%) in 2012 related to injection drug use. New HIV diagnoses in PWID are also low. In 2011, seven (9%) new cases of HIV were diagnosed in persons who inject drugs and no new HIV cases were identified in this group in 2012. Men who have sex with men and inject drugs (MSMIDU) added to these numbers, with five new AIDS cases and one new AIDS case in 2011 and 2012 respectively. New HIV cases in the MSMIDU population numbered two in 2011 and three in 2012. This indicates a continual decrease in the number of new HIV infections in Hawai‘i related to injection drug use.

Another indication of the SEP’s effectiveness in preventing HIV infection among PWID is detailed later in the report. Results of CHOW’s HIV seroprevalence study found a prevalence between 0.0% and 5.8% and 2.3% of HIV among CHOW’s study cohort. These low numbers, coupled with the HIV/AIDS data above, is evidence that access to sterile syringes and other injection-related equipment is keeping the HIV prevalence low among PWID which also supports prevention of HIV in their sexual partners and children. Not only has the HIV prevalence among PWID accessing the SEP continued to be low, having few active PWID living with HIV makes it harder for other PWID (and their partners) to become infected. Access to syringes and other equipment decreases HIV-related risk behaviors such as sharing used needles but does not erase injection-related risk completely. Maintaining a low prevalence of HIV among PWID means if PWID engage in HIV risks such as sharing equipment, they will be less likely to become infected with HIV. National and local data on the prevalence of hepatitis C was not available for comparison but CHOW’s hepatitis C seroprevalence data will be detailed later in this report.

SEP Operations

Hawai‘i’s SEP began in a fixed location which provided the opportunity for the CHOW Project to offer comprehensive services to participants accessing the SEP. After the building was sold, CHOW relocated offices to a building that did not allow participants to access services onsite. The SEP is currently entirely run through mobile sites and Individually Scheduled Exchange Services (ISES) where outreach workers meet participants at locations convenient for the PWID. While this model gives flexibility, it limits the amount of services that may be provided on-site, including HIV and HCV counseling, testing and referral (CTR), wound care, and other activities. The CHOW Project continues to seek a fixed site that would be appropriate for participants in Honolulu in order to provide more comprehensive services; Neighbor Island sites will continue to be run through the mobile vans. The downtown Honolulu mobile exchange has a regular schedule with the van parking in the same location.

five days a week, and most of the Neighbor Islands have a fixed schedule where the vans are parked at a location regularly in addition to ISES visits.

From January to December 2013, the SEP operated from the following regular sites in addition to ISES:

<table>
<thead>
<tr>
<th>Island</th>
<th>Exchange Site</th>
<th>Area of Operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>O'ahu</td>
<td>CHOW O'ahu Mobile Exchange</td>
<td>Island-wide</td>
</tr>
<tr>
<td></td>
<td>CHOW Downtown Mobile Exchange</td>
<td>Downtown Honolulu</td>
</tr>
<tr>
<td>Hawai'i</td>
<td>CHOW East Hawai'i Mobile Exchange</td>
<td>East Hawai'i (Hilo and environs)</td>
</tr>
<tr>
<td></td>
<td>CHOW West Hawai'i Mobile Exchange</td>
<td>West Hawai'i (Kona and environs) (As of 7/1/13 there is no worker in Kona)</td>
</tr>
<tr>
<td>Maui</td>
<td>CHOW Maui Mobile Exchange</td>
<td>Island-wide</td>
</tr>
<tr>
<td>Kaua'i</td>
<td>CHOW Kaua'i Mobile Exchange</td>
<td>Island-wide</td>
</tr>
</tbody>
</table>

As of 2012, there were a total of 203 known SEPs operating in 34 states, the District of Columbia and Puerto Rico\textsuperscript{iv}. SEP sized range from small (<10,000 syringes exchanged a year) to very large (>500,000 syringes exchanged per year) with only 18% falling in the category of very large. The number of syringes exchanged statewide by the Hawai'i SEP in SEP2013 exceeded its program high by exchanging a total of 833,677 syringes, moving it into the very large category.

Figure 1. Total Number of Syringes Exchanged Statewide, 1993-2013

![Graph showing the total number of syringes exchanged statewide from 1993 to 2013](image)

During SEP2013 there were a total of 6441 participant visits; a sixteen point three percent (16.3%) decrease from the 7,699 visits observed in SEP2012. This is the second year in a row with a marked decrease in SEP visits, which supports the gradual decline in the number of SEP visits observed.
over the last decade. This decrease is seen almost exclusively on Oahu, which saw visits drop from 4905 visits in 2012 to 3802 visits in 2013, a twenty two point five percent (22.5%) decrease. The only site that experienced an increase in visits during the SEP2013 was East Hawai‘i.

The decrease in exchange visits and the increase in syringes exchanged could be influenced by a combination of factors, including but not limited to new participants utilizing the SEP, increased drug use among participants, increased SEP availability, or the need for more syringes due to type of drugs being injected. One possible contributor to the increase in syringes exchanged could be the increased percentage of SEP participants who report being involved in secondary distribution of syringes. Sixty two percent (62%) of participants surveyed in SEP2013 reported exchanging syringes for another party. Of all the syringes they reported exchanging in the month prior to being interviewed, they reported that fifty three point two percent (53.2%) of those were exchanged for someone other than themselves. Secondary distribution is often seen as a predictor of fewer visits because it is usually associated with the exchange of larger number of syringes.

Table 2. Number of participant exchange visits, first exchange visits, syringes exchanged, & average number of syringes exchanged by site during SEP2012 and SEP2013.

<table>
<thead>
<tr>
<th>Exchange Site</th>
<th>Visits/percent of total visits</th>
<th>First visits/ percent of total visits</th>
<th>Syringes exchanged</th>
<th>Average # of syringes exchanged per visit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oahu</td>
<td>4,905 (64%) 3802 (59%)</td>
<td>44 (1%) 51 (1%)</td>
<td>387,190 (54%) 428,043 (51%)</td>
<td>78.9 112.6</td>
</tr>
<tr>
<td>East Hawai‘i</td>
<td>1,021 (13%) 1062 (16%)</td>
<td>28 (3%) 18 (2%)</td>
<td>101,124 (14%) 146,942 (18%)</td>
<td>99.04 138.4</td>
</tr>
<tr>
<td>West Hawai‘i</td>
<td>126 (2%) 107 (2%)</td>
<td>9 (8%) 4 (4%)</td>
<td>28,899 (4%) 43,843 (5%)</td>
<td>229.4 409.8</td>
</tr>
<tr>
<td>Maui</td>
<td>996 (13%) 853 (13%)</td>
<td>59 (6%) 55 (7%)</td>
<td>112,781 (16%) 114,858 (14%)</td>
<td>113.2 134.7</td>
</tr>
<tr>
<td>Kaua‘i</td>
<td>651 (8%) 617 (10%)</td>
<td>30 (5%) 35 (6%)</td>
<td>93,606 (13%) 99,991 (12%)</td>
<td>143.8 162.1</td>
</tr>
<tr>
<td>Statewide</td>
<td>7,699 6,441</td>
<td>170 (2.2%) 163 (2.5%)</td>
<td>723,600 833,677</td>
<td>93.99 129.4</td>
</tr>
</tbody>
</table>

The number of new participants utilizing SEP services during the SEP2013 is above the trend observed over the last decade, typically falling between zero point seven percent (0.7%) and one point seven percent (1.7%) of total visits. One hundred and sixty three (163) new participants were tracked statewide in SEP2013, representing one point nine percent (2.5%) of the 6,441 total visits. The utilization of the Kauai’s Mobile Exchange continues to grow and reach new pockets of PWIDs. In SEP2013 twenty one point five percent (21.5%) of new participants were tracked on Kauai, an island that, until four years ago, represented less than one percent (1%) of all participant visits.
Participant Demographics

In 2013, the average age of the participants was 44.27 years, a slight decrease from SEP2012 were the average participant age was 44.4 years. In SEP2013, roughly two thirds of the participants (67%) were male, which remains consistent with previous years. SEP2013 saw 4 transgendered research participants, down from 8 the previous year. These participants exhibit risk specific to their community and therefore a brief description of this population can be found on page 14.

SEP2013 participants come from diverse racial and ethnic backgrounds with a plurality of participants identifying as Caucasian (40%) and almost a quarter (24%) identifying as Mixed or Multiethnic. Participant education ranged from junior high level to graduate school.

Housing continues to be problematic for many SEP participants. In SEP2013, there was a slight decrease in the number of participants living in houses or apartments that they rent or own; forty two point three percent (42.3%) in SEP 2012, to forty two percent (42%).

Among the SEP participants not living in their own houses or apartments, nine percent (9%) in 2013 reported living “with someone else,” compared to sixteen point two percent (16.2%) in SEP2012. In SEP2012 thirty three point eight percent (33.8%) of participants reported living “on the streets,” While thirty nine percent (39%) of participants in SEP2013 reported living on the streets. In SEP2013 forty six percent (46%) of participants considered themselves homeless. This is higher than in SEP2012 when forty one point eight percent (41.8%) reported being homeless.

As well as housing issues, SEP participants also struggle with obtaining and retaining steady employment. In SEP2013, twenty nine percent (29%) of participants reported being out of work, an additional forty eight percent (48%) reported being disabled.

Another challenge that many SEP participants face is mental illness. In SEP2013 more than three fourths or seventy nine percent (79%) of participants reported having at least one psychological diagnosis in their life time, however only thirty eight percent (38%) of these respondents were engaged
in mental health treatment. Depression (52%) and anxiety/panic disorders (34%) where the leading diagnosis.

Figure 5. Psychological conditions of SEP2013 Participants

![Psychological conditions of SEP2013 Participants](image_url)

Participant Drug Use

In SEP2012 participants reported engaging in injection drug use for an average of 17.62 years and reported an average age of 26.8 years for their first injection of drugs. SEP2013 is the second year to see a decrease in the average length of time injecting, with participants reporting injecting for an average of years 17.3. Additionally the age when participants started injecting increased as well; participant’s reported their first injection at 27 years old.

The SEP participants inject drugs very frequently. In SEP2013 they reported injecting on an average of 5.8 days per week, with an average of 2.8 injections on each day they injected. The SEP participants would be at high risk for HIV infection if they did not have good access to sterile injection equipment given the frequency of reported HIV risk behaviors.

SEP2013 saw the continued decrease in Heroin use, with only sixty one percent (61%) of participants having injected Heroin. This is consistent with the decrease in Heroin use that the SEP has witnessed over the last several years. SEP2013 is the second year to mark a slight decrease in the injection of “Narcotics other than heroin” (primarily pharmaceutical analgesics), down very slightly from forty four point six percent (44.6%) to forty four percent (44%).

Overall there has been a gradual increase of participants reporting injecting “narcotics other than heroin”, from (34.7%) in SEP2007 to (44%) in SEP2013. Anecdotal information from SEP participants suggests that there has been an increase of availability of pharmaceutical analgesics and a decrease supply of heroin throughout the 2013 SEP. This trend is consistent with reported national trends.¹

“Uppers Alone” (predominantly amphetamines) were the third most commonly injected drug in SEP2013, with forty five percent (45%) of participants reporting amphetamine injection in the month
prior to interview. This is consistent with SEP2012 when forty two point three percent (42.3%) of respondents reported the injection of “Uppers Alone”.

“Uppers Mix” (predominantly a mixture of heroin and “ice” or methamphetamine) was the fourth most commonly injected drug with fifteen point four percent (15.4%) of participants in SEP2012 and twenty two percent (22%) of participants in SEP2013 reporting its use.

“Speedballs,” or a mixture of heroin and cocaine and “Downers”, where only reported by three (3%) of respondents.

Table 3. Participant drug use SEP2005 - SEP2013

<table>
<thead>
<tr>
<th>Year</th>
<th>Uppers Alone</th>
<th>Uppers Mix</th>
<th>Speedballs</th>
<th>Downers</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>22%</td>
<td>15.4%</td>
<td>3%</td>
<td>78.6%</td>
</tr>
<tr>
<td>2006</td>
<td>22%</td>
<td>15.4%</td>
<td>3%</td>
<td>78.6%</td>
</tr>
<tr>
<td>2007</td>
<td>22%</td>
<td>15.4%</td>
<td>3%</td>
<td>78.6%</td>
</tr>
<tr>
<td>2008</td>
<td>22%</td>
<td>15.4%</td>
<td>3%</td>
<td>78.6%</td>
</tr>
<tr>
<td>2009</td>
<td>22%</td>
<td>15.4%</td>
<td>3%</td>
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<tr>
<td>2010</td>
<td>22%</td>
<td>15.4%</td>
<td>3%</td>
<td>78.6%</td>
</tr>
<tr>
<td>2011</td>
<td>22%</td>
<td>15.4%</td>
<td>3%</td>
<td>78.6%</td>
</tr>
<tr>
<td>2012</td>
<td>22%</td>
<td>15.4%</td>
<td>3%</td>
<td>78.6%</td>
</tr>
<tr>
<td>2013</td>
<td>22%</td>
<td>15.4%</td>
<td>3%</td>
<td>78.6%</td>
</tr>
</tbody>
</table>

Drug-related Risk Behaviors of SEP Participants

SEP 2013 saw a marked increase in the number of participants who reported that they had injected with a syringe that had been used by someone else (“receptive sharing of needles and syringes”) in the one month prior to the interview (14%). This is up from six point nine percent (6.9%) in SEP2012.

In SEP2013, seventy eight point six percent (78.6%) of those participants who indicated that they engaged in receptive sharing reported that this had occurred due to a lack of access to clean equipment. Among the survey respondents who did report “receptive sharing” of needles and syringes in SEP2013, sixty four point three percent (64.3%) reported that they “always” cleaned the used syringes. There are many variables that may influence any protective effect of cleaning; including whether full strength bleach is used as a cleaning agent and whether there is a 30-second contact time of the bleach in the syringe.
“Distributive sharing,” or passing on used syringes to other drug injectors, was also assessed in the survey. This “distributive sharing” places other drug injectors at risk for any blood-borne pathogens that may be carried by the first injector. In SEP2013 seventeen percent (17%) of the survey respondents reported that they had passed on used syringes to other drug injectors in the one month prior to interview. This number is similar to SEP2012 when sixteen point two percent (16.2%) of respondents reported distributive sharing of syringes.

Given that relatively low prevalence of HIV among the SEP participants, this moderate to low rate of “distributive sharing” is not likely to lead to new HIV infections. However, this “distributive sharing” is likely to generate new HCV infections among SEP participants. Current available data suggest that a relatively high percentage of participants are infected with and capable of transmitting hepatitis C.

In SEP2013, of the 17 participants who reported distributive sharing of syringes, 10 (59%) tested positive for HCV antibodies. Eight of fourteen (57.2%) of the respondents who reported participating in receptive sharing of syringes tested negative for HCV antibodies.

SEP2013 saw a mild increase in the receptive sharing of “cookers” (used to heat and dissolve the drug before injecting), from five point four percent (5.4%) in SEP2012, to six percent (6%). SEP2013 also saw a marginal increase in the receptive sharing of “cottons” (used to filter the drug solution before injecting), from three point nine percent (3.9%) in SEP2012 to four percent (4%).

Distributive sharing of “cookers” saw a marked increase in SEP2013 with seventeen percent (17%) of respondents reporting distributive sharing; up from ten percent (10%) in SEP2012. Of that seventeen percent of respondents, fifty eight point eight percent (58.8%) tested positive for HCV antibodies. Five percent (5%) of respondents reported “distributive sharing” of cottons in SEP2013, a moderate decrease from the seven point eight percent (7.8%) reported “distributive sharing” of cottons in SEP2012. Of the five percent of participants who reported “distributive sharing” of cottons, eighty percent (80%) of these respondents tested positive for HCV antibodies. The sharing of cookers and cottons is similar to the direct sharing of syringes. Sharing of cookers and cottons has not been proven to be an efficient method of transmitting HIV, but studies suggest that sharing cookers and cottons may be important in transmitting HCV.

Overdose

SEP2013 is the third year to incorporate questions about drug overdose, with overdose being defined as “loss of consciousness”. Recent research by Hawaii Department of Health states that accidental drug overdose is the second leading cause of accidental death in Hawaii and the leading cause of accidental death nationally. Eighteen percent (19)% of the SEP2013 respondents reported experiencing an overdose at least once in the last three years, compared to twenty four point six percent (24.6%) of all participants interviewed in SEP2012. In SEP2013 forty four point four percent (44.4%) of these respondents who had experienced an overdose reported having overdosed three or more times in the last three years.

It is of interest that eighty eight point nine percent (88.9%) of respondents in SEP2013 and sixty eight point eight percent (68.8%) of respondents in SEP2012 who had reported having overdosed also reported having spent some time in prison in the last five years. Spending time in prison, and
presumably being drug free, is a known risk factor for future overdose as a person’s tolerance for their drug of choice may be greatly reduced.

Additionally, in SEP2013 forty eight percent (48%) of respondents reported witnessing a drug overdose in the last three years, with fifty two point one percent (52.1%) of those respondents reporting having witnessed 3 or more overdoses in the last three years; or twenty five percent of the participants interviewed.

These trends are in line with SEP2012 where forty eight point five percent (48.5%) of respondents reporting having witnessed an overdose, with fifty two point one percent (55.5%) of those respondents reporting having witnessed 3 or more overdoses in the last three years; or twenty six point nine percent of the participants interviewed.

Calling 911, doing CPR (cardiopulmonary resusitation), and “walking a person around”, where the most common responses to witnessing an overdose. Eight point three percent (8.3%) of participants who reported witnessing an overdose in SEP2013 reported that the person who had overdosed died.

Sexual Risk Behaviors of SEP Participants

The survey respondents reported moderate levels of sexual risk behaviors. In SEP2013, forty percent (40%) of respondents reported having a sexual relationship with a “primary partner. Of these respondents one hundred percent (100%) reported not always using a condom with their primary partner. This is significantly higher than in SEP2012 when twenty two point three percent (22.3%) of participants reported having a sexual relationship with a “primary partner,” of whom eighty nine point seven percent (89.7) reported not always using a condom with their primary partner.

In SEP2013 eighteen percent (18%) of participants reported having a sexual relationship with a “casual” partner. Of these respondents, seventy seven point eight percent (77.8%) reported not always using a condom with their “casual” partners. This is an increase from the sixty seven point seven percent (67.7%) of the respondents who had casual partners who reported that they did not always use condoms with those partners in SEP2012.

Participants also reported engaging in trading sex for money or drugs. In SEP2013 nine percent (9%) of participants surveyed reported this behavior; and forty four point four percent (44.4%) of these did not always use a condom when trading sex for money or drugs. This is a decrease from SEP2012 were sixty six point seven percent (66.7%) of these respondents reported not always using a condom. No participants reported exchanging drugs or money for sex.

While the HIV prevalence among PWID is low, this high level of sexual risk-taking is worrisome because of the risk of sexually-acquired HIV as well as risk for other sexually transmitted diseases. CHOW will continue to distribute condoms and provide safer sex education to participants to address sexual risk-taking among SEP participants. CHOW distributed 36,306 condoms to at risk individuals in SEP2013.

HIV Infection

SEP2013 is the first year in the history of the evaluation to have no participants test positive for HIV. There are still members of our community living with HIV, but none were randomly selected to
participate in this year’s research. The overall number of known HIV positive participants in the SEP population remains low.

The data from these HIV testing study is consistent with all other HIV testing data in the State\textsuperscript{viii}. The HIV testing component of the study provides direct evidence that both prevalence and incidence of HIV infection are quite low among PWID participating in the SEP. CHOW offers HIV testing for participants as an on-going service and encourages participants to know their HIV status and to link HIV positive persons to medical care.

**HCV Infection**

In SEP2013 sixty seven percent (67%) of respondents tested positive for HCV antibodies. Fourteen point nine percent (14.9%) of these participants reporting testing negative on their last HCV test.

While this number is very high, it is lower than the studies in 2009 and 2010 (79% and 71.5% respectively) and has remained stable through 2011 and 2012 (67.6%, and 67.7% respectively). The differences in HCV prevalence between older and younger injectors in marked (75.3% vs. 28.6% in 2012 and 74.1% vs 38.6% in 2013 respectively) and are marked and are linked to how long PWID have been injecting. Having a high prevalence of HCV among older injections is consistent with the long average duration of injecting among the syringe exchange participants, approximately 23 years in SEP2012 and 17.3 years in SEP2013. Many SEP participants began injecting prior to the advent of the SEP and therefore may have already been exposed to HCV before accessing the SEP’s services. Additionally, HCV is approximately 10 times more infectious than HIV and can live outside the body (unlike HIV) for up to four days\textsuperscript{ix} – both of which increases the risk of transmission. The lower rate of HCV among young injectors indicates that prevention of HCV is possible and CHOW must continue to work to support participants in preventing the transmission and acquisition of HCV while linking Hepatitis C positive participants to medical care and supportive services.

**Sexual/Physical Abuse**

One of the issues that many SEP participants face is dealing with past, and ongoing, physical and sexual abuse. SEP2013 is the third year participants were asked about physical and sexual abuse, in childhood (before the age of 18) and in adulthood (after the age of 18).

In SEP2013 nearly half (43%) of all respondents reported being physically abused in childhood, with physical abuse being defined as any act resulting in a non-accidental physical injury. This is a significant increase from the thirty four point six percent (34.6%) of participants who reported being physical abused in childhood in SEP2012.

SEP 2013 saw a slight increase in physical abuse as an adult, from twenty six point nine percent (26.9%) in SEP2012, to thirty two percent (32%). In SEP2013 seventy eight percent (78%) of all respondents who reported being physically abused in adulthood where biological and transgendered women. This number is significantly higher than in SEP2012 (62.9%). These respondents were disproportionately abused by primary partners (88%).

It is of note that several respondents reported being abused by more than one person. In SEP2013 forty one point nine percent (41.9%) of participants who reported experiencing physical abuse in childhood also reported experiencing physical abuse in adulthood.
Twenty eight percent (28%) of participants in SEP2013 and twenty two point three percent (22.3%) reported being sexually abused in childhood, with sexual abuse being defined as any unwanted sexual contact, including being molested, sodomized, or raped. Thirty five point seven percent (35.7%) of participants who reported being sexually abused in childhood were men, a typically highly underreported group.

In SEP2013 roughly half (57.2%) of all respondents whom reported being abused by a family member. This trend is in line with SEP2012 when fifty eight point six percent (58.6%) of respondents reported being sexually abused by a family member. An important limitation to note in this study is that the current research tool does not collect data with regards to how many different abusers may be within a group (i.e. how many different family members).

Nineteen percent (19%) of respondents in SEP2013, as compared to twenty percent (20%) of respondents in SEP2012, reported being sexually abused in adulthood; these respondents where disproportionately biological and transgendered women (73.7%).

Someone the participant did not know, the participant’s primary partner, and participant’s clients/tricks where the top perpetrators of sexual abuse in adulthood. It is of note that sixty six point seven percent (66.7%) respondents who reported being sexually abused by their primary partner were women.

Thirty nine point three percent (39.3%) of respondents in SEP2013 reported experiencing sexual abuse in childhood as well as experiencing sexual abuse in adulthood. A significant number of participants (60.7%) who reported experiencing sexual abuse in childhood also reported experiencing physical abuse in childhood. Similarly, a significant number (68.4%) of participants who reported experiencing sexual abuse in adulthood also reported experiencing physical abuse in adulthood.

Transgendered Injectors Demographics

Historically, transgendered participants made up less than 1% of the population in any given research year. However in SEP2013, they make up 4% of the research population. However, due to the relatively small overall sample size, this percent only represents four individuals. In order to further protect these individuals anonymity, only broad demographics will be reported herein.

The transgendered respondents in the SEP2013 where all male to female transgendered women. Compared to the overall SEP2013 respondents, they were disproportionately homeless (100%), disabled and unable to work (100%), living with at least one mental health diagnosis (100%), and selling sex (75%) or having drug related income (100%) to support themselves. Additionally, they have higher rates of HCV than the general population (75%).

CHOW continues to make efforts to support this highly underserved population. CHOW outreach staff coordinates with the Life Foundation where appropriate and offers referrals to service providers who are known to be culturally competent.

Benefit/Cost Analysis of Hawaii SEP

While there are many difficulties in conducting a benefit/cost analysis of any HIV prevention program, it is clear that it is very expensive to treat HIV infection, and the cost has increased with the
advent of highly active anti-retroviral treatment (HAART). According to a 2009 analysis the average life time cost of treating someone living with HIV is $379,668. Additionally, a very close linkage exists between HIV infection among PWID and heterosexual transmission of HIV in the United States. Based on the national data, preventing an average of 3 HIV infections per year among PWID would then prevent an average of 1.2 additional HIV infections among non-drug injecting heterosexual partners of PWID for a total of slightly more than 4 infections prevented per year. The combined SEP/CHOW Project would provide a cost savings to the State of Hawai‘i if it prevented as few as two (2) HIV infections per year.

Conclusions

The annual survey has a modest sample size (100 subjects) and there is frequently year-to-year variation in many operational characteristics of the program, subsequently, the evaluation should be viewed as a snapshot of the PWID in Hawai‘i and the epidemiological value of the study is found both in the annual survey as well as in the trends in the data over time. In addition, the survey offers the opportunity for CHOW participants to give feedback about the services they are receiving. CHOW participants who participated in the survey rated the SEP at a 9.86 on a 10-point scale when asked how satisfied they were with CHOW services. These comments and the survey results will inform any programmatic changes that are necessary to ensure services reflect the study’s outcomes and recommendations.

HIV/AIDS among PWID is a major public health problem in many countries throughout the world. It is a particular problem in the United States, where approximately one third of all reported AIDS cases have been related to injection drug use. Hawai‘i acted early to establish HIV prevention programs for PWID which has kept the AIDS cases related to injection drug use about half the national average. The CHOW HIV testing study conducted over the past nine years found both a low prevalence (3%) and a low incidence (likely to be less than 1% per year) among PWID participating in the SEP. Given that the program is relatively large, it probably reaches a high percentage of PWID in the state, and it is unlikely that prevalence or incidence are very different among PWID not participating in the SEP. The continuing success in limiting HIV transmission among injecting drug users in Hawai‘i is notable given indications of a resurgence of HIV infections among some high-risk populations in Hawai‘i and in other parts of the United States.

The CHOW HCV testing study conducted for the first time in 2007 showed a high prevalence of eighty eight point seven percent (88.7%) and the prevalence for SEP2013 at sixty seven percent (67%). These findings fall within the world-wide range of 60% to 90% among PWID. Because the average duration of injecting among the syringe exchange participants is approximately 17.3 years, many of the participants may have been infected with HCV before the syringe exchange became fully established. With the increase of young injectors being surveyed, the prevalence rate drops significantly, meaning that prevention of hepatitis in this subpopulation may still be possible and youth should be targeted for aggressive HCV prevention activities. As HIV/HCV co-infection creates very serious medical problems, much more than single infections with either virus, Hawai‘i is fortunate that the rate of HIV infection has been kept very low in this population.

While the present data systems do not permit an exact count of the numbers of PWID who use the Hawai‘i SEP, the program is one of the larger programs in the United States based on the annual numbers of syringes exchanged with SEP2013 having the largest number of syringes exchanged since the program’s inception. Given the upwards trend in number of syringes exchanged, it seems unlikely that the annual number of syringes exchanged has stabilized and monitoring of the numbers of syringes...
exchanged should be continued. The increase in “Narcotics other than heroin” (primarily pharmaceutical analgesics) injected over the past few years indicates the need to continue monitoring this trend and adapt the program as appropriate.

Participants in the SEP report low but not negligible rates of injection risk behavior; however based on their drug injection frequencies, participants in the SEP would be at very high risk for HIV infection if they did not have a legal source of sterile injection equipment and other needed educational and support services. Given the considerable costs of medical treatment for HIV infection and the consistent evidence for low rates of HIV infection among PWID in Hawai‘i, there is great certainty that the investment in the integrated SEP/CHOW Project produces a substantial cost savings for the State of Hawai‘i.

**Recommendations**

The Hawai‘i SEP has become an effective statewide program and has contributed to the low prevalence of HIV among PWID in Hawai‘i. The highest priority must be given to maintaining quality and quantity of the services provided, in particular to preventing transmission of HIV and HCV by exchanging syringes and distributing clean cottons, cookers and sterile water used for drug injection. As resources allow, the SEP should expand services to include activities identified as best practices among SEPs such as overdose prevention and basic wound care. The SEP should continue to seek a fixed site for providing comprehensive services to participants in Honolulu.

While HIV prevalence is quite low in Hawai‘i among PWID, the SEP should continue offering HIV prevention interventions beyond syringe access. HIV counseling, testing and referral services should be available to all participants and the SEP should work to ensure that those PWID who test positive for HIV have sufficient access to a full range of prevention services, including partner notification, sterile syringes and condoms to avoid transmission behaviors and access to HIV case management, care and treatment.

HCV prevalence is very high among SEP participants and every effort should be made to increase the availability of sterile injection equipment for PWID at the time of drug injection. The disparity between the HCV prevalence of older and younger injectors (75.3% vs. 28.6% in 2012 and 74.1% vs 38.6% in 2013 respectively) highlights the importance of primary prevention for younger injectors and secondary prevention for older injectors. Extra efforts should be made to support SEP participants who are negative in staying negative and to link participants with hepatitis C to medical care and to engage in liver wellness activities.

While there were a number of young injectors identified in this year’s report, PWID in Hawai‘i are clearly an aging population. They already have substantial health problems and these will undoubtedly increase with aging. Efforts need to be continued to assist participants accessing health care and social services.

Overdose continues to be an issue among PWID in Hawaii. A comprehensive Overdose Prevention, Education and Naloxone access program should be implemented. This would include working to enact policy changes such as Good Samaritan and Naloxone access legislation.

There are several structural barriers to increasing the health of PWID in Hawai‘i that need to be addressed. Methadone treatment services should be expanded to West Hawai‘i and Kaua‘i and access to buprenorphine should be expanded statewide as alternatives to injection drug use.


7 Hawaii State Department of Health, Injury Prevention and Contro Program


