## **Abstract**

# **Backgrounds:**

In Taiwan monitoring the HIV epidemic situation is mainly from the HIV and AIDS reporting system, but the information from that system just only are obtained the information about case number and charaters. It lacks the information of HIV risk behaviors, HIV incidence and HIV prevalence among high risk group such as injecting drug users, men who have sex with men. Besides, injecting drug users have became the major crisis in HIV epidemic since 2005 in Taiwan. The broad aim of this study is to monitor HIV risk behavior and HIV transmission in a high-risk population of active drug injectors for the purpose of guiding local HIV prevention efforts.

## **Study Aims:**

The broad aim of this study is to monitor HIV risk behavior and HIV transmission in a high-risk population of active drug injectors for the purpose of guiding local HIV prevention efforts.

### **Methods:**

The survey will use Respondent Driven Sampling to recruit up to 700 IDUs. The researchers will also collect blood samples, which will be tested for HIV,HCV and HBV; for recent infection with HIV using the STARHS test; and will be stored for future testing. Recruitment will take place in storefronts rented from existing HIV prevention and outreach programs in the city. The recruitment would take place in Taipei area, Koushioung area and the middle area of Taiwan.

Study participants will be recruited, using Respondent Driven Sampling (RDS- see below), if they meet the criteria for study inclusion: they must have injected drugs in the last six months, be aged 18 or older, willing and able to provide informed consent, and report living or injecting drugs in the geographic unit being sampled. In the RDS protocol, "seeds" are recruited by study staff and asked to refer to the study three other IDUs that they know. Seeds must meet study eligibility criteria. Seeds will be told that they will receive reimbursement only for referring eligible subjects; we will also inform them that the individuals they refer must be able to show track marks or other evidence of recent injection. Referred individuals who are deemed to be eligible will be asked to refer to the study three of their injection associates; this procedure is repeated for 4 to 6 waves. After completing the interview, participants will be asked if they would be willing to help recruit other IDUs to the study for a small incentive (\$10 each). Participants will be given three uniquely coded

coupons each, and told to give the coupons to any IDUs they know. The unique code is recorded in the record of the enrolled referred subjects, linking the referent to the referee.

### **Results**:

Up to the end of October at the year of 2007, we've completed questionnaire analysis for 629 injection drug dependency cases and 690 blood infectious diseases examines. Out of which, the positive rate for C hepatitis reaches as high as 85.65%, and 22.61% for B hepatitis positive, 21.88% for HIV positive. Therefore, it is clear that hepatitis prevention and the treatment will be one of the major focuses for our future work. In the meantime, we also use the RDSAT statistical software and estimate the HIV the masculine positive rate for the injection drug dependency groupe to be somewere around 15.3%, and the size of the injection drug user population is estimated to be approximately at 43000 people. Data on the injecting drug users together with the risk behavior suggests that although the needle sharing behavior is improved, however, there still is about 45% ratio in the diluent sharing group. Within these interviewed subjects, there are approximately 30% of which have visited our clean needle service site or receive the methadone therapy. It is concluded that in the experiment implemention part, the exchange bill and the nutrition reward mechanism is effective and is highly suggested; Secondly, the concept to avoid diluent sharing among injection drug user, test for the feasibility of mass domestic quick tests, as well as the service quality of the harm reduction, measured in the effective guidance of the rehabilitation, should all be continued and strengthen. From the research point of view, the preliminary results also suggested the future work should include a generation trace study, to futher investigate the relationship between behavioral change and infection causes

<u>Keywords:</u> Behavioral Surveillance system, HIV, HIV incidence, HIV prevalence, Injection Drug User, Taiwan