The hypothesis was that IDUs aware of their HIV positive status will have safer sexual practices than IDUs aware of their HIV negative status or never tested for HIV. Methods: IDUs who had injected in the past 6 months were recruited in harm reduction programs across the Province of Quebec and Ottawa, Canada. Participants completed a questionnaire including questions on sexual behaviors and provided saliva for HIV antibody testing. For IDUs with multiple participations, the last interview was selected. Data from 2003 to 2009 were analyzed. The groups were compared: IDUs aware of their positive HIV status (n=510), IDUs aware of their negative HIV status (n=338) and IDUs never tested for HIV (n=247). Proportions were compared using chi-square tests. Results: Male IDUs aware of their positive HIV status were less likely to have had sex in the last month (32.6%, HIV negative: 47.7%, and never tested: 55.9%; p<0.001, n=2741) and, among those sexually active, more likely to have used a condom at last sexual intercourse (HIV positive: 57.4%, HIV negative: 43.7%, and never tested: 51.7% p=0.001, n=1249). This was not observed for women. In the last six months, the proportion of male IDUs who had always used condoms for vaginal or anal sex with their female sex partners was significantly higher in HIV positive than in HIV negative and in those never tested, for regular (54.6%, 21.8% and 35.3%, respectively, p=0.001, n=1113), casual (74.7%, 44.4% and 51.2%, respectively, p=0.002, n=953) and partners of whom they are a client (68.7%, 68.6% and 62.1%, respectively, p=0.012, n=121). Women never tested for HIV were less likely than the other groups to use condoms with their regular partners (never tested: 47.1%, HIV positive: 23.3%, HIV negative: 9.8% p<0.001, n=580) and their client sex partners (never tested: 46.2%, HIV positive: 82.1% and HIV negative: 76.6% p=0.05, n=192). Women aware of their positive HIV status were more likely to report condom use with their casual sex partners, whereas those never tested were less likely (HIV positive: 46.7%, HIV negative: 40.8% and never tested: 53.5% p=0.01, n=235). Conclusions: IDUs aware of their positive HIV infection reported more consistent condom use with their various types of sex partners than those aware of their HIV negative status or never tested.

Some studies have shown that knowledge of HIV positive status is associated with safer sexual behaviors among injecting drug users (IDUs) [1-3]. At least one study demonstrated safer sexual practices in IDUs aware of their HIV positive status [4]. Another study observed more consistent condom use with primary but not casual sex partners [5]. Few studies have examined the association between HIV status knowledge and sexual behaviors among injecting drug users according to the type of sex partners.

**Objective and hypothesis**

The objective was to compare sexual behaviors between: IDUs aware of their HIV positive status, IDUs aware of their HIV negative status and IDUs who have never been tested for HIV.

The hypothesis was that IDUs aware of their HIV positive status will have safer sexual practices compared to IDUs aware of their HIV negative status or never tested for HIV.

**Methods**

IDUs who had injected in the past 6 months were recruited in harm reduction programs across the Province of Quebec and Ottawa, Canada. Data from 2003 to 2009 were analyzed. The last interview was selected for IDUs who participated more than once.

A questionnaire administered by an interviewer was completed by each participant. Some questions were related to sexual behaviors in the last 6 months and in the last year.

Data are available separately for heterosexual regular, casual, client sex partners and partners of whom participants are a client. To be considered as consistent condom users, IDUs must always have used condom (vs. sometimes or never) with a given type of sex partners.

HIV antibody testing was performed on saliva samples using an enzyme linked immunosorbent assay. Proportions were compared using chi-square tests.

**Summary of results**

- **Sex in the last month:**
  - Male IDUs aware of their HIV positive status were less likely to have sex in the last month (p<0.001, n=2741).
  - This was not statistically significant for women.
- **Condom use at last sexual intercourse:**
  - Male aware of their HIV positive status were significantly more likely to report consistent condom use (p<0.001, n=1249).
  - This was not observed for women.
- **Sex in the last 6 months:**
  - Both men and women aware of their HIV positive status were more likely to report no sex partners.
  - Consistent condom use in the last 6 months:
    - With regular sex partners:
      - Men aware of their HIV positive status were more likely to report consistent condom use (p<0.001, n=123).
      - Women aware of their HIV positive status were less likely to have been tested for HIV.
    - With casual sex partners:
      - Women who have never been tested for HIV were less likely to have used a condom with their casual sex partners.
    - With client sex partners:
      - Men and women aware of their HIV positive status were more likely to report consistent condom use.
  - With sex partners of whom participants are a client:
    - Men aware of their HIV positive status and especially in women.
    - Male IDUs who have never been tested for HIV are less likely to report consistent condom use.

**Conclusions**

In agreement with our hypothesis, IDUs aware of their HIV positive status were less likely to be sexually active and more likely to report consistent condom use with their various types of sex partners. In addition, IDUs who have never been tested for HIV were less likely to report consistent condom use. The proportion of participants who reported inconsistent condom use remains high, even in IDUs aware of their HIV positive status and especially in women.

**References**