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| **Author, year** | **Type of study** | **Location/setting/ high or low prevalence population (based on 0.1% prevalence rate)** | **Study duration/ followup** | **Comparison groups** | **Demographics/baseline disease** |
| Amaro et al, 200584 | Before-after observational | Massachusetts; HIV counseling and testing sites; high-risk sites (seroprevalence >2%), low risk sites (seroprevalence <2%) | May 1996 to February 1997; 3 months | Before HIV test vs. after HIV test (3 months after testing) | 48.9% male Males: mean age, 35.9 years (SD, 9.74); 38.7% white, 31.7% black, 24.5% Hispanic, 5% other; 12.8% married, 4.0% same sex partner, 38.3% different sex partner, 44.2% not in special relationship; 55.1% history of partner HIV risk (sex partner in last 5 years who was IDU, had sex outside the relationship, was HIV positive, or had an STD); 2.9% exchanged sex for drugs (35% unknown); 32.5% history of IDU; 61.3% previous HIV test; 4.7% positive HIV test result  Females:mean age, 31.5 years (SD, 9.23); 53.2% white, 16.4% black, 22.0% Hispanic, 8% other; 11.5% married, 3.1% same sex partner, 47.9% different sex partner, 36.4% not in special relationship; 62.2% history of partner HIV risk (sex partner in last 5 years who was IDU, had sex outside the relationship, was HIV positive, or had an STD); 7.7% exchanged sex for drugs (35% unknown); 17.8% history of IDU; 64.0% previous HIV test; 1.0% positive HIV test result |
| Brogly et al, 200285; Bruneau et al, 200188 | Before-after observational | Montreal, Canada; self-referral, hospital detoxification unit, IDU centers; high; prevalence in original study cohort 11.1% (Bruneau, 2001) | January 1996 to July 1999 (source cohort recruiting began 1988 [Bruneau, 2001]); first followup visit planned at 3 months, subsequent every 6 months (although participants did not adhere to this schedule and eligibility changed to minimum of 1 month between time of HIV-positive notification and next study visit) | Before HIV diagnosis vs. after HIV diagnosis (at least 1 month after diagnosis)  Also had HIV-positive vs. HIV-negative group | 93% male; 79% French speaking; mean and median age, 38 years Comparing IDU who test positive for HIV vs. those who test negative: Currently have no stable home: 56/2% vs. 36.5%; p=0.003 In drug treatment since last visit: 32.9% vs. 47.9%; p=0.025 Perceived current health status >6 (1=very bad, 9=perfect): 43.8% vs. 62.1%; p=0.006 Mean (SD) number of cocaine injections per day in past 4 weeks: 7.9 (8.8) vs. 4.2 (6.3); p<0.001 Mean (SD) number of heroin injections per day in the past 4 weeks: 0.2 (0.5) vs. 0.6 (1.3); p=0.040 Lent needles in past 4 weeks: 35.6% vs. 22.8%; p=0.031 Borrowed needles in past 4 weeks: 50.7% vs. 32.0%; p=0.004 Shared needles with an HIV-positive partner since last visit: 45.2% vs. 13.2%; p<0.0111 Used needle exchange program to obtain clean needles in the past 3 months: 61.6% vs. 45.7%; p=0.018 |
| Camoni et al, 200986 | Before-after observational (retrospective) | 5 large cities in Italy; infectious disease and sexually transmitted infection clinics; not reported | 2006; not applicable | Before HIV diagnosis vs. after HIV diagnosis (at least 2 years after diagnosis) | 65.5% male; median age, 40 years (range, 34–45); 85.2% Italian; HIV exposure category: 43.4% heterosexual contact, 27.2% homosexual contact, 20.6% IDU; 52.5% clinical stage A upon enrollment; n=138/253 IDU |
| Fox et al, 200987 | Before-after observational | London, UK; HIV clinic; not reported | January 2002 to January 2004; 3 months | Before HIV diagnosis vs. after HIV diagnosis (at 12 weeks ± 5 days after diagnosis) | 96% Caucasian, 1% black Caribbean, 2% Asian, 1% other; median age, 33 years (range, 20–59); 88% had seroconversion symptoms; 26% had STD at HIV diagnosis; 51% had unprotected insertive anal sex with casual partner, 64% had unprotected receptive anal sex with casual partner, 38% ever received payment for sex, 10% had no casual sex partner in past 3 months, 38% had 1–5 casual sex partners in past 3 months, 17% had 6–10 casual sex partners in past 3 months, 35% had >10 casual sex partners in past 3 months |

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| **Author, year** | **Eligibility criteria** | **Exclusion criteria** | **Number screened/ eligible/enrolled/ withdrawals/% analyzed** | **Virologic response** | **CD4 count response** | **Adjusted variables  for statistical analysis** |
| Amaro et al, 200584 | Ages ≥18 years, speaker of English or Spanish, ability to give informed consent, attending 1 of 13 study sites | Exclusively homosexual behavior | 1286 eligible; 939 (73%) enrolled, completed pretest questionnaire; 672 completed posttest questionnaire (72% followup rate); 560 analyzed overall; 16 HIV-positive | Not reported | Not reported | Multinomial logistic regression analysis used to examine effects of HIV serostatus and counseling services, sociodemographic, behavioral predictors, on post-HIV test stage of change for condom use with main partners, stratified by stage of change and condom use at pretest |
| Brogly et al, 200285; Bruneau et al, 200188 | Cohort eligibilty: ages ≥14 years, residing in Montreal, having injected drugs in past 6 months, having provided informed consent Current investigation: injected drugs in past 6 months, unaware of HIV-positive status at enrollment Current analysis: aware of HIV diagnosis for at least 1 month before study visit for those testing positive | For particular behavior change analysis, only participants that were aware of their status for relevant amount of time were included (e.g., those who knew of status for past 3 months included for behaviors covering past 3 months) and individuls had to be aware of HIV seropositivity for a minimum of 70% of time period over which behavior change was assesed; only those who could augment or diminish behavior as measured by questionnaire were included; changes in sexual behavior assessed in male subjects only due to small number of females | 103 HIV-positive eligible; 73 HIV-positive analyzed, 219 HIV-negative analyzed | Not reported | Not reported | No adjustments |
| Camoni et al, 200986 | Ages >18 years, diagnosed at least 2 years prior to study | Not reported | 497 eligible; 487 enrolled; 487 analyzed for sexual behavior, 253 analyzed for drug use behavior | Not reported | Not reported | No adjustments |
| Fox et al, 200987 | Men who have sex with men, diagnosed with primary HIV infection | Not reported | 104 eligible; 98 analyzed (100% followup) | Not reported | Not reported | No adjustments |

| **Author, year** | **Outcomes** | **Adverse events** | **Funding source and role** | **Quality rating** |
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| Amaro et al, 200584 | All HIV-positive participants adopted safer behavior with main and nonmain partners at posttest, indicating that HIV status was the most significant factor determining stage of change for condom use at posttest. Posttest questionnaire given at 3 month followup visit (statistics for this group not reported) | Not reported | Centers for Disease Control and Prevention | Fair |
| Brogly et al, 200285; Bruneau et al, 200188 | Behavior change in IDUs who received positive test result: 26.2% (11/42) stopped injecting, 49.3% (36/73) decreased number of injections by 20%, 62.5% (5/8) decreased injection heroin use, 73.1% (19/26) stopped lending needles, 62.2% (23/37) stopped borrowing needles, 70.6% (12/17) stopped sharing needles with HIV-positive partner, 34.2% (25/73) increased number of needles from needle exchange program by 25%, 37.5% (27/72) increased use of needle exchange program, 50.0% (9/18) of males stopped sexual realtions, 100% (5/5) of men stopped sex work. For majority of behaviors examined, significantly higher proportion of HIV-positive IDUs adopted protective vs. risky behaviors (data not shown). Considering behavior change among HIV-positive individuals only, substantial number of IDUs responded to HIV diagnosis by engaging in lower risk behaviors. | Not reported | National Health Research and Development Program of Health Canada; National Institute of Drug Abuse | Fair |
| Camoni et al, 200986 | Comparing drug use before HIV diagnosis vs. after HIV diagnosis  Injecting drug use: yes, n=138 (54.5%) vs. n=82 (32.4%); no, n=114 (45.1%) vs. n=164 (64.8%); no answer, n=1 (0.4%) vs. n=7 (2.8%); McNemar chi=42.9; p<0.0005  Syringe exchange: yes, n=113 (44.7%) vs. n=40 (15.8%); no, n=104 (41.1%) vs. n=160 (63.3%); no answer, n=36 (14.2%) vs. n=53 (20.9%); McNemar chi=53.7; p<0.0005  Comparing sexual behavior before HIV diagnosis vs. after HIV diagnosis  Number of sex partners: <2, n=81 (16.6%) vs. n=219 (45.0%); >2, n=405 (83.2%) vs. n=264 (54.2%); no answer, n=1 (0.2%) vs. n=4 (0.8%); McNemar chi=113.47; p<0.0005  Sex for money or drugs: yes, n=64 (13.1%) vs. n=33 (6.8%); no, n=413 (84.8%) vs. n=433 (88.9%); no answer, n=10 (2.1%) vs. n=21 (4.3%); McNemar chi=16.68; p<0.0005  Sex with sex workers: yes, n=78 (16.0%) vs. n=35 (7.2%); no, n=381 (78.25) vs. n=416 (85.4%); no answer, n=28 (5.8%) vs. n=36 (7.4%); McNemar chi=22.37; p<0.0005  Comparing sexual behavior with stable partner and occasional partner before HIV diagnosis vs. after HIV diagnosis Stable partner: yes, n=434 (89.1%) vs. n=377 (77.4%); no, n=53 (10.9%) vs. n=110 (22.6%); McNemar chi=27.75; p<0.0005  Condom use, vaginal sex: always, n=24 (5.5%) vs. n=150 (39.8%); not always/never, n=323 (74.5%) vs. n=122 (32.4%); no answer, n=87 (20.0%) vs. n=105 (27.8%); McNemar chi=118.07; p<0.0005  Condom use, anal sex: always, n=18 (4.1%) vs. n=120 (31.8%); not always/never, n=292 (67.3%) vs. n=126 (33.5%); no answer, n=124 (28.6%) vs. n=131 (34.7%); McNemar chi=86.49; p<0.0005  Condom use, oral-genital sex: always, n=4 (0.9%) vs. n=34 (9.0%); not always/never, n=372 (85.7%) vs. n=273 (72.4%); no answer, n=58 (13.4%) vs. n=70 (18.6%); McNemar chi=26.03; p<0.0005  Occasional partners: yes, n=400 (82.1%) vs. n=283 (58.1%); no, n=87 (17.9%) vs. n=204 (41.9%); McNemar chi=89.11; p<0.0005  Condom use, vaginal sex: always, n=41 (10.3%) vs. n=107 (37.8%); not always/never, n=254 (63.5%) vs. n=65 (23.0%); no answer, n=105 (26.2%) vs. n=111 (39.2%); McNemar chi=65.33; p<0.0005  Condom use, anal sex: always, n=42 (10.5%) vs. n=115 (40.6%); not always/never, n=267 (66.8%) vs. n=91 (32.2%); no answer, n=91 (22.7%) vs. n=77 (27.2%); McNemar chi=68.36; p<0.0005  Condom use, oral-genital sex: always, n=11 (2.7%) vs. n=49 (17.3%); not always/never, n=329 (82.3%) vs. n=188 (66.4%); no answer, n=60 (15.0%) vs. n=46 (16.3%), McNemar chi=31.24, p<0.0005 | Not reported | VI Programma Nazionale di Ricerca sull'AIDS 2005 | Fair |
| Fox et al, 200987 | Risk for onward transmission: unprotected anal intercourse with regular partner of unknown or negative HIV status, unprotected anal intercourse with casual male partners, or incident sexually transmitted infection  Significant changes in risk behavior in the 12 weeks following HIV diagnosis, n=74/98 (76%) posing no risk for onward transmission during that period. Overall shift to fewer sex partners in cohort with 65 men decreasing number of partners, 26 staying same, 7 increasing number (Wilcoxon test Z, -6.302; p<0.001) (visual representation). Proportion always using condoms during receptive anal intercourse with casual partners increased from n=13/76 (17%) to 29/45 (64%) (p<0.001) and for insertive anal intercourse from n=22/72 (31%) to 28/46 (61%) (p<0.01). Paired analysis for receptive anal intercourse showed 23 men increased condom use, 16 stayed the same, 2 used condoms less (Wilcox test Z, -4.097; p<0.001). Paired analysis for insertive anal intercourse showed 15 men increased condom use, 19 stayed the same, 5 reduced use (Wilcox test Z, -2.294; p=0.024). 24 men reported behaviors that posed a continuing risk for transmission to others post-HIV diagnosis, although this group significantly decreased their numbers of sex partners post-diagnosis (14/24 reduced number of partners, 8/24 stayed the same, 2/24 increased number; Wilcox test Z, -2.610; p<0.009) | Not reported | United Kingdom Medical Research Council, UNAIDS | Good |

IDU = injection drug user; SD = standard deviation; STD = sexually transmitted disease.