

HIV Prevention Effectiveness Report 2000 Up-date



**Colorado Department
of Public Health
and Environment**

Section One: Table of Prevention Interventions

OVERVIEW

The following are HIV intervention effectiveness studies compiled by incorporating published HIV effectiveness studies that have been the result of an exhaustive review of the major journal databases (i.e. MEDLINE, AIDSLINE etc.). This document's purpose is to serve as an up-date to previous Intervention Effectiveness Reports. This up-date also includes studies from the 1999 *Compendium of HIV Prevention Interventions with Evidence of Effectiveness* by the Centers for Disease Control, the 1997 *HIV Prevention Effectiveness Report* by Avery Wilson, and finally the 1994 Intervention Effectiveness Report by Tamara Hoxwoth. It is intended that this up-date will provide Colorado's planning group, Coloradans Working Together (CWT), information and insight when planning for HIV/AIDS interventions for the state of Colorado.

ORGANIZATION

Section One: Table of Prevention Interventions

The table of Prevention Interventions highlights characteristics of the populations and interventions for all studies. This table is intended to be a quick reference guide that will assist the reader in selecting an article that targets specific population characteristics and interventions.

Abbreviations used in the table:

DU = Drug Users	CLI = Community Level Intervention
HA = Heterosexual Adults	CTR = Counseling Testing & Referral
MSM = Men who have sex with men	GLI = Group Level Intervention
Y = Youth	ILI = Individual Level Intervention
AA = African American	NEP = Needle Exchange Programs
API = Asian/Pacific Islander	PCM = Prevention Case Management
L = Latino/a	OR = Outreach
W = White	PI = Public Information
O = Other	NR = Not Reported
CBO = Community Based Organization	

Section Two: Summaries of Prevention Interventions

This section provides a brief summary of each HIV intervention. These are organized to emphasize the intervention content and methods. Summaries are ordered alphabetically by author.

Section Three: Citations

This section provides a complete citation of the articles ordered alphabetically by author. The complete citation includes the authors, titles, journal in which it is published, and date of the publication.

Section One: Table of Prevention Interventions

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Citation	Target				Gender %		Race/Ethnicity %						Age (Yrs)		Setting	Intervention										Comments
	DU	HA	MSM	Y	M	F	AA	API	L	AI	W	O	Average	Range		CLI	CTR	GLI	ILI	NEP	PN	PCM	OR	PI		
ACDP '99	x	x	x	x	46	54	54		19		22	5		30% <30	Community	✓		✓	✓							
Ashworth '94		x				100	95						26	15-42	WIC Program Office				✓							
Basen-Engquist '94		x			33	67					82		22		College			✓								
Boatler '94	x				NR	NR			53				NR		Clinic			✓								
Boyer '97		x			67	33	45		15		29	11		18-35	Clinic				✓							
Bruneau '96	x				NR		NR	NR	NR	NR	NR	NR	NR							✓						
Caceres '94		x		x	50	50	NR	NR	NR	NR	NR	NR	15.5	11- 21	Schools			✓								
CDC '93	x	x	x		NR		NR	NR	NR	NR	NR	NR	35*		PCM Program								✓		Median age	
CDPHE '95	x	x	x		77	23	25		22		49	3	NR		PCM Program								✓			
Choi '96			x		100			100					NR		Community			✓								
Cleary '95		x	x		78	22	34		20		45	1	32		Clinic		✓									
Cohen '91		x			59	41	76		15			9	25*	15-61	Clinic			✓							*Median Age	
Cohen '92	x	x			71	29	92						25		Clinic			✓								
Colon '95	x				80	20			*				25		Community		✓		✓				✓		Conducted in San Juan P.R.	
Corby '96	x	x				100	NR	NR	NR	NR	NR	NR	25		Street	✓			✓				✓			
Deren '95	x	x			71	29	63		31			6	25		Street/ Clinic	✓		✓	✓				✓			
Des Jarlais '92	x				69	31	23		26		51		25		Storefront			✓								
Des Jarlais '96	x				65	35	27		30		43								✓							
DiClemente '95		x				100	100						23	18-29	Community			✓								

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DiScenza '96		x	x		70	30	70				30		34	22-45	Clinic				✓						Targets HIV+ Clients	
Citation	Target				Gender %		Race/Ethnicity %					Age (Yrs)		Setting	Intervention									Comments		
	DU	HA	MSM	Y	M	F	AA	API	L	AI	W	O	Average	Range		CLI	CTR	GLI	ILI	NEP	PN	PCM	OR	PI		
El-Bassel '92	x					100	36		64					90% 21-42	Clinic			✓								
Falck '94	x				NR		NR	NR	NR	NR	NR	NR	NR		Street								✓			
Griffith '95		x	x		37		NR	NR	NR	NR	NR	NR	NR		Clinic										✓	
Hagan '95	x				NR	NR	NR	NR	NR	NR	NR	NR	NR		NEP					✓						
Hobfoll '94		x				100	57				40	3	21	16-29	Clinic			✓								
Jemmott '92		x		x	100		100						15		School			✓								
Jemmott '98		x		x	53	47	100						12		School			✓								Targets inner-city youth
Kalichman '95		x			52	48	19				73	8	39	31-47	Community			✓								Targets mentally ill adults
Kamb '98		x			57	43	59		19		19	6	25*	24% <20	Clinic	✓			✓							*Median age
Kaplan & Heimer '94	x				NR	NR	NR	NR	NR	NR	NR	NR	NR		NEP					✓						Analysis performed not on individuals, but rather syringes returned to the New Haven, CT NEP
Kaplan '94	x				NR	NR	NR	NR	NR	NR	NR	NR	NR		NEP					✓						
Kegeles'96			x		100		4	7	6		81	2	23		Community	✓		✓	✓						✓	
Kelly '89			x		100		13				87		31		Med Office			✓								
Kelly '92			x		100		9		5		85		29		Gay Bars	✓		✓	✓							
Kelly '94		x				100	87		3	4	6		29		Clinic			✓								
Kirby '91				x	47	53	2	9	20	2	62			56% in 10th Grade	School			✓								
Klee & Morris '95	x				NR	NR	NR	NR	NR	NR	NR	NR	NR		NEP					✓						
Landis '92	x	x	x		69*	31*	87*						32*		Health Dept										✓	*Index case group

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	DU	HA	MSM	Y	M	F	AA	API	L	AI	W	O	Average	Range		CLI	CTR	GLI	ILI	NEP	PN	PCM	OR	PI		
Lauby '2000		x				100	73						25	15-34	Community	✓			✓				✓	✓	Targets inner-city women	
MacGowan '97	x				55	45	21		27		46	6	34		Clinic		✓									
Magura '94	x	x		x	100		65		33		2		18*	16-19	Prison			✓							*Median age	
Main '94		x		x	51	49	6	3	21		65	5	15		School			✓								
Malow '94	x				100		100							20-50	VA Hospital			✓								
Martin '95	x				81	19	72						30		Community			✓							Targets incarcerated	
McCusker '96	x				68	32	6.2		25		69		NR		Clinic/Jail		✓									
McCusker '92																										
Miller '95			x		100		10		10		80		36		CBO Office			✓								
Morton '96				x	40	60	24		1	2	70	3		H.S.	Schools			✓								
Nelles & Harding '95	x					100	NR	NR	NR	NR	NR	NR	NR		NEP					✓						
O'Donnell '94		x			100		62		38				30		Clinic			✓								
O'Donnell '98		x			60	40	60		40				30		Clinic			✓							Video-based STD education	
O'Neill '96	x					100*	NR	NR	NR	NR	NR	NR	26		Drug Program				✓						*Targets pregnant women	
Paone '95	x					100	33		38		29		34		NEP					✓						
Pavia '93	x	x	x		84*	16*	8*		7*		85*		32*		Health Dept							✓			*Index case group	
Pele '96			x		100		NR	NR	NR	NR	NR	NR	NR		TV and Press									✓		
Ragon '95		x			50	50					93				College			✓								
Reitmeijer '96	x				82	18	43		28	27		26	37		Street	✓			✓				✓			
Remafedi '94			x	x	100		14	4	3	3	75	2	19	13-21	NR			✓	✓							
Rothreman-Bours '95			x	x	100		31		51		12	6	17		CBO Office			✓								

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Rothreman-Bours '97		x		x	51	49	57		22		16	5	16		Shelter			✓							
Santelli '95		x				100	100							17-35	Community	✓			✓				✓	✓	
Schonfeld '95		x		x	NR	NR	59		26			15		K-6th	Schools			✓							
Sellers '94		x		x	NR				94					14-20	Schools	✓		✓	✓				✓	✓	Targets latino/a youth
Shain '99		x				100	42		58					14-45	Clinic			✓							Targets minority women
Siegel '89	x				75	25	75				18	7	NR		Street		✓								
Siegel '95		x		x	NR	NR	38	41	9		6	6		Jr H.S.	Schools			✓							
Sikkema '2000		x				100	75		3		20	2	NR		Community	✓		✓							Targets low income women
Sikkema '95		x				100	5				95			19-22	College			✓							
Sikkema '96		x				100	NR	NR	NR	NR	NR	NR	NR		Community	✓			✓				✓		Targets low income women
Smith '95		x		x	NR	NR	40				59	1	17		Schools			✓							
Spencer '93	x	x	x		82	18	28		20		65	1	NR		Health Dept						✓				*Index case group
St Lawrence '95a	x	x		x	73	26	16				84		16	13-17	Drug Program			✓							
St Lawrence '95b		x		x	28	72	100						15	14-18	Clinic			✓							
Stall '96	x		x		100		NR	NR	NR	NR	NR	NR	NR		Drug Program			✓							
Stanton '96		x		x	56	44	100						11	9 -11	Community	✓		✓							
Valdiserri '89			x		100		3	<1	1		95		33	19-73	CBO Office			✓							
Watters '94	x				69	31	45		14		34		36		NEP					✓					
Wenger '92		x			67	33	87						28	18-66	Clinic			✓							
Wexler '94	x				81	19	57		33		9	1	35		Community			✓							
Wiebel '96	x				76	24	53		18		26			18-50+	Street	✓			✓				✓		

Section Two: Summaries of Prevention Interventions

Study	Population	Intervention	Objectives	Findings	Comments
ACDP (1999)	Interviews were conducted with 15,205 individuals who were injection drug users, female sex partners of injection drug users, commercial sex workers, non-gay-identified men who have sex with men, high-risk youth, and/or residents in census tracts with high rates of sexually transmitted disease. Of the interviewees, 46% were men and 54% were women; 54% were African American, 19% were Hispanic, 22% were white, and 5% were of other racial/ethnic groups; and 35% were under 30 years of age.	The intervention aimed to modify attitudes and beliefs about prevention methods among the community members by providing models of successful risk-reduction strategies adopted by members of the target population.	To determine the effects of a community-level intervention to increase condom use with main and non-main partners and/or to increase disinfection of injection equipment.	Individuals in the intervention communities demonstrated significantly greater achievement of consistent condom use and maintenance of consistent condom use with non-main partners than individuals in the comparison communities.	This study is included in the "Compendium of HIV Prevention Interventions with Evidence of Effectiveness" from CDC's HIV/AIDS Prevention Research Synthesis Project.
Ashworth et al. (1994)	217 women in a WIC program in Augusta, GA (May 1990-Oct.1990); mean age: 25.8 yrs. (range: 15-42 yrs); 94.5% African-American; mean level education: 11th grade.	Random assignment to: <ul style="list-style-type: none"> • Videotape encounter (n=71): instruction via the video The Subject is: AIDS. • Nurse-educator (NE) encounter (n=73): standardized presentation on HIV/AIDS transmission/prevention by a black community health nurse. Control (n=73): no specific education except an opportunity to read available pamphlets and ask questions. 	Measure relative effects of video and NE encounters (vs. Control) on: <ol style="list-style-type: none"> 1. HIV/AIDS knowledge 2. Intention to reduce risky behavior 3. Fear of HIV infection 4. Attitudes toward persons with AIDS 	Pretest/posttest + 2-mo. follow up design found: <ol style="list-style-type: none"> 1. Significantly higher knowledge scores for video and NE groups at posttest; however trend for decreasing scores approaching baseline at follow up. 2. Significant increase in intent for both groups at posttest; at follow up only NE group maintained increase. 3. No effect on fears. 4. Significantly increased tolerance for both groups at posttest; but then decreased to be same as Control at follow up. 	Strong study design. Evidence fairly strong for effect at posttest that is not maintained at follow up.

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Boatler et al. (1994)	110 heroin-addicted IDUs in a methadone treatment (DATAR project) clinic in Corpus Christi, TX from May-July 1991. 49% had previously attended > 4 HIV Module sessions. Length in DATAR treatment ranged 1–402 days (median = just less than 4 months). Primarily Hispanic (53% Mexican American)	Participation in a AIDS/HIV Risk Reduction Module—4 group and 2 individual sessions. Included: HIV/AIDS knowledge, safer needle use and sexual behavior, and “hands on” demonstrations.	Measure the impact of HIV Module on: 1. Increasing knowledge 2. Increasing attitudes 3. Improving risk behaviors	Stratified a pretest/posttest only analysis into High (> 4) and Low (< 4) Session Groups: 1. Significantly increased HIV/AIDS knowledge for High-Session Group in early treatment (< 4 mos). 2. Not reported. 3. Significant improvement noted for High-Session Group regardless of length of stay in treatment.	Study did not incorporate comparison/control group (hence, weak study design). Findings not clearly presented and were difficult to interpret; magnitude of change reported uncertain.
Boatler et al. (1995)	110 heroin-addicted IDUs in a methadone treatment (DATAR project) clinic in Corpus Christi, TX from May-July 1991. 49% had previously attended > 4 HIV Module sessions; Length in DATAR treatment ranged 1-402 days (median = just less than 4 months). Primarily Hispanic (53% Mexican American).	Participation in a AIDS/HIV Risk Reduction Module: 4 group and 2 individual sessions. Included: HIV/AIDS knowledge, safer needle use and sexual behavior, and “hands on” demonstrations.	To measure the impact of HIV Module on: 1. Increasing knowledge 2. Increasing attitudes 3. Improving risk behaviors	Stratified a pretest/posttest only analysis into High (> 4) and Low (< 4) Session Groups: 1. Significantly increased HIV/AIDS knowledge for High-Session Group in early treatment (< 4 mos) 2. Not reported 3. Significant improvement noted for High-Session Group regardless of length of stay in treatment.	Study did not incorporate comparison/control group (hence, weak study design). Findings not clearly presented and were difficult to interpret; magnitude of change reported uncertain.
Boyer et al. (1997)	399 heterosexual adults (18-35 yrs. old) attending STD clinic in SF, CA, Jan. 1992-Jan. 1993. 67% male; 45% African-American, 29% white, 15% Hispanic; 284 (72%) completed baseline and 3- or 5-mo. follow up.	Random assignment to: • Intervention (n=199): 4-session, cognitive/behavioral individual counseling. • Comparison (n=200): single, brief (15 min.) risk reduction counsel-session (routinely offered to all STD clinic patients).	Determine effect of intervention on: 1. Reducing new STD incidence 2. Increasing HIV/AIDS knowledge 3. Increasing use of condoms	Randomized trial design found: 1. No difference in STD acquisition. 2. No difference in HIV/AIDS knowledge. 3. No effect among women; among men, increased. Condom use was increased among men at 3-mo. follow up (56.8% vs. 42.3%) and no. of sexual partners with whom condoms not used decreased at 5-mo. follow up (0.6 vs. 0.9).	Strong study design (randomized trial).

Section Two: Summaries of Prevention Interventions

Bruneau et al. (1996)	1,599 recent IDUs recruited into a cohort study from Sep. 1988–Jan. 1995. Subjects included regular and occasional NEP users and NEP non-users. Baseline seroprevalence: 10.7%. Mean follow-up time of subjects: 15.4 months.	NEP attendance.	Evaluate incidence of HIV seroconversion, adjusting for confounding variables	<p>Nested case-control study found:</p> <ol style="list-style-type: none"> 1. 89 incident HIV cases with cumulative probability of seroconversion of 33% for NEP users and 13% for non-users. 2. Exclusive NEP users were 4X more likely to seroconvert than never-users: OR=4.2 (95% CI 1.5-11.5). 3. Non-exclusive NEP users 3X more likely to seroconvert than never-users: OR=3.3 (95% CI 1.6-6.7). 4. Consistent NEP use strongly associated with seroconversion: OR=10.5 (95% CI 2.7-41.0). 	Fairly strong study design. Good sample size.
Caceres et al. (1994)	1,213 students attending 14 secondary schools in Lima, Peru (808 completed 2 follow up assessments). Mean age: 15.5 yrs. (range: 11-21 yrs.); 50% male, 50% female; 75% Catholic; 25% already sexually active; of non-sexually active, 13% reported planning to be active soon.	<p>Schools randomized to:</p> <ul style="list-style-type: none"> • Study group (n=604): 7 weekly 2-hr. sessions including lectures, discussions, role-playing, and homework. • Control group (n=609): no intervention 	<p>Assess impact of intervention on:</p> <ol style="list-style-type: none"> 1. HIV/AIDS, sexuality knowledge 2. Erotophilia and machismo 3. Acceptance of contraception/condoms 4. Attitudes towards people with HIV/AIDS 5. Perceived skills and self-efficacy 6. Intentions to prevent high-risk behaviors 	<p>Pretest/posttest controlled design found:</p> <ol style="list-style-type: none"> 1. Significant increase in knowledge. 2. Significant increase in erotophilia and decrease in machismo. 3. Significant increase in contraceptive/condom acceptance. 4. Significant decrease in discrimination attitudes. 5. Significant improvement in skills/self-efficacy. 6. Significant increase in risk-reduction intentions. 	Strong study design with ample sample size.

Section Two: Summaries of Prevention Interventions

CDC	(1993)	755 HIV-positive clients assigned to PCM at CHCs in Miami, New York City, and Newark, NJ; analysis restricted to 61 clients in PCM from 1991-1992. Median Age: 35.	Prevention case management; at baseline and follow up visits clients surveyed re: drug use and sexual behaviors.	Assess effectiveness of PCM on: 1. Sex encounters in past 30 days 2. Number of sex partners in past 30 days 3. Number of new sex partners 4. Number of regular partners 5. Condom use with regular partner	Pretest/posttest-only design found: 1. Significantly more clients at follow up stated they had not had sex in the past 30 days (53% vs 35%). 2. Significantly more clients at follow up reported having no new partners in the last 30 days (57% vs 39%). 3. No difference in number of new sex partners. 4. No difference in number of regular partners. 5. No difference in condom use with regular partner.	Weak study design. Small sample size.
CDPHE (1995) Unpublished	225 clients of CDPHE PCM case managers, from program inception in 1989 through June 1995.	Colorado model of PCM.	Assess behavior change, including needle sharing and sexual behavior; Verify behavior change through STD and pregnancy records and client observation; Measure extent to which client accessed community and medical services for the first time	68.3% reported a change to safer behavior. 55.2% of behavior changes were verified by records or observation (e.g., signs of needle use). 27.1% were contradicted by records or observation. 17.1% were lost due to inability to locate client or other reasons. 48.2% of clients accessed community resources for the first time. 37.7% of clients accessed medical services for the first time.	Study has not been completed; results are preliminary. Study did not have a control group. Because the study is unpublished, it was not subject to peer review.	
Choi et al.	(1996)	329 self-identified Asian/Pacific Islander MSMs in San Francisco, 1992-1994. Sample surveyed at baseline and at 3-mo. follow up.	Random assignment to: • Skills Training: single 3-hr. group session stressing (1) self-identity and social support, (2) safer sex, (3) eroticizing safer sex, and (4) negotiating safer sex. • Wait list controls: did not participate in intervention during study period (participated later).	Assess impact of brief GLI on: 1. Reducing number of sex partners 2. Reducing unprotected anal sex	Pretest/posttest with control group design found: 1. Significantly reduced (by 46%) number of sex partners for all subjects. 2. Chinese and Filipino groups significantly reduced unprotected anal sex events (>50%), OR=0.41 (95% CI 0.19-0.89).	Strong study design. Good sample size.

Section Two: Summaries of Prevention Interventions

Cleary et al. (1995)	271 HIV-positive persons donating blood to the New York City Blood Center (New York City, NY). The study population was primarily male, young, highly educated, and single.	<p>After notification and counseling, participants randomly assigned to one of two information and support interventions:</p> <ul style="list-style-type: none"> • Structured: A multiple, cognitive-behavioral and skills training group (N=135). • Community referral: encouraged by nurse at baseline session to seek services and were provided referrals (N=136). 	<ol style="list-style-type: none"> 1. Assess effectiveness of structured intervention on changes in sexual behavior of HIV+ donors (compared to "standard" community referral group) 2. Assess which donor characteristics are predictive of behavior change 	About 30% reduction in unsafe sexual behavior reported for both groups after one-year follow-up; no significant differences between groups. The strongest predictor of unsafe sex at one-year follow-up was unsafe sex immediately prior to notification (baseline) visit.	Of HIV+ donors eligible, only 38% participated. Small numbers for each group (low statistical power). Despite 30% reduction for both groups, the level of unsafe sexual behavior was still high (63.8 and 69.8% at 1-year).
Cohen et al. (1991)	Of the 192 adults who participated in the study, 59% were male and 41% were female; 76% were African American, 15% were Hispanic, and 9% were of other racial/ethnic groups. The median age of the participants was 25 years, ranging from 15 to 61 years.	This intervention was based on the premise that familiarity with condoms and skills in using condoms properly are necessary for increasing future condom use. The intervention consisted of a brief condom skills education session led by a health educator who was an African-American woman. The intervention was delivered in a single 30-minute group session to people waiting for appointments in a Los Angeles STD clinic.	To determine the effects of a small group intervention on the incidence of sexually transmitted diseases (STDs).	Men and women who participated in the intervention were significantly less likely to return to the STD clinic within the next 12 months with a new STD than those in the comparison condition.	This study is included in the "Compendium of HIV Prevention Interventions with Evidence of Effectiveness" from CDC's HIV/AIDS Prevention Research Synthesis Project.
Cohen et al. (1992)	Of the 426 adults who participated in the study, 71% were men and 29% were women; 92% were African American. The average age of the participants was 28 years.	The intervention was delivered in a single group session to people waiting for appointments in a Los Angeles STD clinic. A trained female African-American health educator led sessions for groups of 10-25 participants.	To determine the effects of a small group intervention to promote safer sex and condom use.	Men who participated in the intervention had a significantly lower STD reinfection rate than men in the comparison condition. There was no evidence of change for women.	This study is included in the "Compendium of HIV Prevention Intervention with Evidence of Effectiveness" from CDC's HIV/AIDS Prevention Research Synthesis Project.

Section Two: Summaries of Prevention Interventions

Colon et al. (1995)	1,113 IDUs from San Juan, Puerto Rico area who had not been in drug treatment in last 30 days. Mean age: 32.7 yrs.; 80% male; 64% not completed high school; 23% reported illegal activities as major income source; 46% HIV+. 983 (88%) completed pre- and 6-mo. follow up assessments.	Street outreach education, HIV counseling, testing and referral. Educational brochures, condoms, and bleach distributed; emphasis on safe needle and sex practices.	Evaluate effect of intervention, independent of secular trends, on: 1. Reducing risky needle/drug behavior 2. Reducing risky sexual behavior	Time series, pretest/posttest design found: 1. No effect on needle sharing, injecting at shooting galleries. Significant effect on reducing shared use of cookers and unbleached needles. 2. No effect on risky sexual behavior.	Lack of control group, but large sample size.
Corby and Wolitski (1996)	2,839 street interviews with high-risk women in intervention and comparison communities in So. Calif. over 4 time periods (baseline, early, mid-, and late intervention). Mostly IDUs (68%); 38% sex workers, 36% partners of male IDU, 45% in 2 or more categories. (AIDS Community Demonstration Project)	Community-level outreach utilizing distribution of role model stories along with condoms and, for drug users, bleach.	Evaluate impact of intervention by assessing: 1. Exposure to intervention 2. Observed frequency of condom carrying 3. Frequency of condom use with non-main sex partner 4. Frequency of condom use with main sex partner	Time series with comparison group design found: 1. Significant increase in exposure at last time point: 71% for intervention vs 2% for comparison. 2. Observed condom carrying increased >2X (16% to 39%) from 1st to last time period; no change in comparison area (stable at ~15%). 3. Condom use with non-main partner significantly increased. 4. No effect on condom use with main partner.	Moderately strong design. Large sample size.

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Deren et al. (1995)	<p>994 out-of-treatment IDUs and their sex partners who completed baseline and 6-mo. follow up assessments following recruitment by outreach workers, May 1989-Dec. 1990. 71% male, 67% African-American, 33% Latino; 90% unemployed and 53% had not completed high school.</p>	<p>Group-level component of Harlem AIDS Project, a community-level outreach intervention; all recruits offered "standard" group session, some of whom randomly assigned to additional "enhanced" session. 3 groups compared in analysis:</p> <ul style="list-style-type: none"> • None (n=294): recruited, but attended none of the sessions. • Standard (n=384): single 90-min. HIV/AIDS information session. • Enhanced (n=316): three 90-min. sessions based on cognitive/behavioral model with skills building. 	<p>Measure effect of GII part of intervention on:</p> <ol style="list-style-type: none"> 1. Injection risk behaviors 2. Sexual risk behaviors 	<p>Pretest/posttest with control group design found:</p> <ol style="list-style-type: none"> 1. For injection risk behaviors: All 3 groups reported significant decrease from baseline; no significant difference between intervention groups and control (None) group. 2. For sexual risk behaviors: All groups showed significant reductions over time; no significant differences between intervention groups and control group. 	<p>Fairly strong study design (some randomization involved). Large sample sizes.</p>
Des Jarles et al. (1996)	<p>Subjects in 3 IDU cohorts:</p> <ul style="list-style-type: none"> • Syringe Exchange Evaluation (SEE): 280 attenders of NYC exchange programs. • Vaccine Preparedness Initiative (VPI): 321 NYC respondents; 133 exchange users, 188 non-users. • Very-high seroprevalence National AIDS Demonstration Research (NADR) sites: 1,029 subjects from 4 NADR cities (greater NYC metro area and Puerto Rico) with > 40% seroprevalence. Cohorts differed somewhat on demographics; overall, mostly male, Latino or African-American, and > 30 yrs. 	<p>Attendance at NYC NEP programs (SEE + VPI) vs. non-attenders (VPI + NADR).</p>	<p>Assess seroincidence:</p> <ol style="list-style-type: none"> 1. By comparing incidence rates (per person-years at risk) 2. By determining, in a pooled data analysis, hazard ratio for HIV infection for non-use of exchanges during time-at-risk (period(s) of injecting drugs) 	<p>. Cohort-study analysis found:</p> <ol style="list-style-type: none"> a. among continuing NEP users: incidence in SEE cohort: 1.58 (95% CI 0.54-4.65); incidence in VPI cohort: 1.38 (95% CI 0.23-4.57). b. among non-NEP users: incidence in VPI cohort: 5.26 (95% CI 2.41-11.49); incidence in NADR cohort: 1.38 (95% CI 4.4-8.6). <p>2. Proportional hazard modelling found that non-use of exchanges significantly associated with over a 3X chance of seroconversion (hazard ratio = 3.35, 95% CI: 1.29-8.65).</p>	<p>Fairly strong study design with good sample sizes.</p>

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Des Jarles et al. (1996)	Of the 83 drug users (heroin sniffers) who participated in the study, 69% were men and 31% were women; 23% were African American, 26% were Hispanic, and 51% were white. The average age of the participants was 28 years.	The intervention was delivered in four 1- to 1½-hour sessions over a 2-week time period. The intervention was led by 2 trainers who encouraged a therapeutic atmosphere in which participants felt free to discuss personal problem situations and seek help from the trainers and from their peers.	To determine the effects of a small group intervention to prevent the transition from sniffing heroin to injecting heroin.	Men and women who participated in the intervention were significantly less likely to inject drugs than those in the comparison condition.	This study is included in the "Compendium of HIV Prevention Interventions with Evidence of Effectiveness" from CDC's HIV/AIDS Prevention Research Synthesis Project.
DiClemente and Wingood (1995)	128 sexually active heterosexual African-American women (18-29 yrs. old) residing in Bayview-Hunter's Pt. neighborhood in SF, CA; 100 (78.1%) completed both baseline and 3-mo. follow up.	After pretests, women randomly assigned to study conditions: <ul style="list-style-type: none"> • Social skills (n=53): 5 weekly 2-hr sessions emphasizing ethnic and gender pride, condom use, communication skills, etc. • HIV education (n=35): Single 2-hr. information session. • Delayed HIV education (n=40): No HIV education until all others completed assessments. 	Measure changes associated with social skills and HIV education vs. delayed HIV education groups on: <ol style="list-style-type: none"> 1. HIV/AIDS knowledge 2. sexual self-control 3. sexual assertiveness 4. sexual communication 5. partner norms 6. condom use 	No difference in HIV education vs. delayed HIV education groups found. For social skills vs. delayed HIV education, found: <ol style="list-style-type: none"> 1. No difference in knowledge changes. 2. Significant increase in self-control (adj. OR=1.9). 3. Significant increase in assertiveness (adj. OR=1.8). 4. Significant increase in communication skills (adj. OR=4.1). 5. Significant increase in partner norms (adj. OR=2.1). 6. No effect on personal condom use skills; significant increase for use of condoms during sex (adj. OR=2.1). 	Strong study design/analytic approach. Small sample size limits accuracy and generalizability.
DiScenza et al. (1996)	20 adult newly-diagnosed HIV-positive persons being treated in an inner-city outpatient clinic. 14 (70%) African-American; 14 (70%) male. Mean age: 34 yrs. (range: 22-45 yrs.).	All subjects attended one-time, individualized counseling session with registered nurse re: HIV/AIDS and safe sex practices.	Assess effect of nurse counseling session on: <ol style="list-style-type: none"> 1. HIV/AIDS knowledge 2. Frequency of high-risk behaviors 	Pretest/posttest-only design found: <ol style="list-style-type: none"> 1. No significant difference in knowledge scores. 2. Significant decrease in frequency (but not cessation) of high-risk sexual behaviors. 	Weak study design. Very small sample size.

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El-Bassel et al. (1992)	Of the 84 female methadone patients who participated in the study, 36% were African American and 64% were Hispanic. More than 90% of the women were between the ages of 21 and 42 and 90% were unemployed.	The intervention was delivered in five 2-hour sessions with about ten women in each group. The intervention was led by experienced female drug counselors who had received an additional 20 hours of training. Sessions 1-2: Information on AIDS transmission and prevention. Session 3: Condom use. Sessions 4-5: Assertiveness training, problem solving, and communication skills.	To determine the effects of a small group intervention to reduce sexual risk behavior and HIV transmission by increasing AIDS knowledge, sexual negotiation skills, and safer sex practices.	Women who participated in the intervention significantly increased frequency of condom use with their partners compared with women in the comparison condition.	This study is included in the "Compendium of HIV Prevention Intervention with Evidence of Effectiveness" from CDC's HIV/AIDS Prevention Research Synthesis Project.
El-Bassel et al. (1995)	101 adult (18-55 yrs. old) female drug users scheduled for release from prison (16% self-reported being HIV positive) in NY City	Random assignment to: • Intervention: 4 90-min. group sessions weekly; emphasized skill building and peer support; included didactic and self-efficacy techniques. • Control: 3 90-min. group information sessions on non-HIV-related issues.	Determine effect of intervention on: 1. Increasing safe sex 2. Increasing HIV/AIDS knowledge 3. Improving problem-solving, self-efficacy, and communication skills 4. Increasing peer support	Randomized trial design found: 1. No effect on safe sex. 2. No effect on HIV/AIDS knowledge. 3. No effect; non-significant trend of increased coping skills. 4. Non-significant trend of increased peer support.	Strong design, but low sample size.
Flack er al. (1994)	IDUs and crack cocaine users frequenting drug copping and prostitution areas in Columbus and Dayton, OH. Baseline and 6-month follow up data gathered.	Subjects recruited during counseling and testing outreach; randomized to: • Control (no N given): no counseling between initial and follow up interviews. • Standard (no N given): one 1-hr standard counseling session at receipt of results. • Experimental (n=105): standard intervention plus PCM.	Assess effectiveness of PCM vs Standard and Control on: 1. Reducing unsafe drug use behaviors 2. Reducing unsafe sex behaviors	Randomized trial found: 1. No difference between groups. 2. No difference between groups.	Strong study design. High drop-out/non-participation rate..

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Griffith et al. (1995)	19,242 persons attending genitourinary (STD) clinic for C&T in London during 1985-1993. 37% were women; of men, 60% heterosexual. Overall, 199 women and 1,539 men tested HIV-positive.	Numerous education campaigns and HIV-related media events conducted during this time period using a variety of media.	To determine if peak attendance for HIV testing corresponded with media events	Cross-sectional (time series-only) surveys found that peak periods of attendance for HIV testing generally corresponded with increased HIV-related media activity with the greatest rates of testing observed when the media events occurred concurrently.	Fairly weak evaluation design. No comparison group include so lack of a control for an historical explanation of results.
Hagen et al. (1995)	48 heterosexual IDUs with acute hepatitis B or C and 64 IDUs without hepatitis who attended services at the health department in Tacoma, WA during 1991-1993.	Attendance at the local NEP.	Examine the relationship between use of the NEP and hepatitis in injection drug users	Case-control study found: 1. About 75% of case patients vs. 25% of control patients had never used the NEP. 2. After adjusting for various demographic variables and other potential confounders, non-use of the exchange was associated with over a fivefold greater risk of hepatitis B (OR=5.5, 95% CI 1.5-20.4) and a sevenfold greater risk of hepatitis C (OR=7.3, 95% CI 1.6-32.8).	Sample sizes not very large. Fairly strong design and analysis.
Hobfoll et al. (1994)	206 inner-city, single, pregnant women seeking obstetrical care at clinic for low-income women in Midwest city. Mostly African-American (57%) and white (40%); mean age: 21 yrs.; 74% had incomes < \$8,000 per year.	Random assignment to: • HIV/AIDS Prevention (n=68): four 90–120-min. group sessions every other week at clinic (2-8/group), focused on providing HIV/AIDS knowledge, preventive skills training. • Health promotion (n=77): Same format, but topics focused on issues unrelated to AIDS. • No intervention (n=61): No participation in any group activity.	Compare effect of each GLI (a) to control and (b) to each other on: 1. Increasing HIV/AIDS knowledge 2. Reducing no. of partners and increasing communication with partners 3. Increasing condom and spermicide use 4. Reducing unprotected anal sex 5. Increasing abstinence	Randomized trial design found: 1. Significant increase in AIDS knowledge for HIV intervention vs. control. 2. No effect on no. of partners; significant increase in communication skills for HIV group vs. control. 3. Significant increase in intent to use condoms/spermicide for HIV group (vs. both other groups); significant use of condoms increased for HIV group (vs. control only). 4. Significant increase in protected anal sex for HIV group vs. control. 5. No effect on abstinence.	Strong design, but fairly low sample sizes. Results did not demonstrate significant differences between HIV group and Health promotion group.

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Jemmott et al. (1992)	Of the 157 African-American male adolescents who participated in the study, the average age of participants was 15 years; almost all (97%) were enrolled in school.	The intervention consisted of one 5-hour session held on a Saturday morning in a local school in Philadelphia, Pennsylvania. The session was led by African-American men and women with backgrounds in human sexuality education, nursing, social work, and small group facilitation. The leaders received 6 hours of training for this intervention. The intervention included information about risks associated with injection drug use and specific sexual activities.	To determine the effects of a small group intervention to reduce HIV risk behaviors and increase condom use.	Adolescents who participated in the intervention reported more frequent use of condoms and fewer sex partners than adolescents in the comparison condition.	This study is included in the "Compendium of HIV Prevention Interventions with Evidence of Effectiveness" from CDC's HIV/AIDS Prevention Research Synthesis Project.
Jemmott et al. (1998)	659 African American adolescents recruited for a Saturday program. Mean age: 11.8; 53% female.	Eight one-hour modulars implemented by adult facilitators or peer cofacilitators. Abstinence intervention stressed delaying sexual intercourse or reducing its frequency; safer sex intervention stressed condom use.	To evaluate the effects of abstinence and safer sex HIV risk reduction interventions on young inner-city African American adolescents' HIV sexual risk behaviors when implemented by adult facilitators as compared with peer cofacilitators.	Adolescents exposed to abstinence intervention were less likely to report having sex in the 3 mo after intervention but not at 6 and 12 mo follow-up. Safer sex intervention participants reported significantly more condom use than the control group at all follow-up periods.	Strong study design (randomized trial) with fairly large sample size.

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Kalichman et al. (1995)	52 chronically mentally ill adults (27 men, 25 women) recruited from 2 outpatient programs in downtown Milwaukee, WI; 38 (73%) white; 45 (87%) unemployed; 38 (73%) had annual incomes < \$8,000; 38 (73%) sexually active.	After baseline measurement, random assignment to: <ul style="list-style-type: none"> • Immediate intervention (n=23): 4 weekly 90-min. sessions (5-7 same sex persons/group) emphasizing risk reduction, sexual assertiveness, condom use, problem solving skills, etc. • Wait-list (n=29): received intervention at a later time. 	Baseline vs. posttest and 1-and 2-mo. follow up evaluated effect on: 1. HIV/AIDS knowledge 2. Intentions to change risk behaviors 3. Change behavior in sexually active: a. Increase no. of conversations with partner b. Decrease unprotected sex c. Increase condom-protected sex	Randomized trial design found: 1. Significantly increased AIDS-related knowledge (p<0.01 for all time points). 2. Significantly strengthened intentions to change risky behavior (p<0.02 for all time points). 3. a. No. of conversations increased significantly at posttest; declined slightly at follow up. b. Unprotected sex significantly declined from 5.7 events at baseline to 1.25 at 2-mo. follow up. c. Significantly increased condom-protected sex (18.2% at baseline to 38.5% at posttest to 52.5% at 1-mo. follow up to 62.5% at 2-mo. follow up).	Very small sample size. However, study still detected several effect differences, many of which were large.
Kamb et al. (1998)	Of the 5,758 HIV-seronegative adults who participated in the study, 57% were male and 43% were female; 59% were African American, 19% were Hispanic, 16% were white, and 6% were of other racial/ethnic groups. Median age of the participants was 25 years and 24% were < 20 years; 54% were unemployed.	The Enhanced and Brief Counseling interventions were based on the Theory of Reasoned Action and Social Cognitive Theory. Sessions were interactive and designed to change factors that could facilitate condom use, such as self-efficacy, attitudes, and perceived norms.	To determine the effects of enhanced and brief interactive counseling interventions to reduce high-risk behavior and to prevent new STDs.	Participants in both counseling interventions reported significantly higher condom use compared with participants in the comparison condition. Of the counseling participants, 30% fewer had new STDs compared with participants in the didactic message condition. In the counseling interventions, benefits accrued equally to men and women, and STD reduction was higher among adolescents than older participants.	This study is included in the "Compendium of HIV Prevention Interventions with Evidence of Effectiveness" from CDC's HIV/AIDS Prevention Research Synthesis Project.

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Kaplan and Heimer (1994)	Analysis performed not on individuals, but rather syringes returned to the New Haven, CT NEP during 1990-1993: Of 45,568 needles returned, 1,920 were tested that had been returned by 132 different clients.	PCR analysis of residual blood on syringes returned by attendees of the NEP.	To ascertain effect of NEP on reducing HIV infections independent of self-reported data.	815/1,920 needles (42.4%) tested HIV-positive. Mathematical modeling of maximum likelihood found: 1. Initial estimate of HIV incidence (based on data from 1990-1992) was 0 (95% CI 0-10.2 new infections per 100 drug injectors per year. 2. Estimate updated with data through Aug. 1993 was 1.63 new infections per 100 drug injectors per year (95% CI 0-7.2).	Mathematical model, assumptions, and calculations difficult to understand. No control group; no "pre"-exchange incidence information reported.
Kaplan et al. (1994)	Participants of New Haven, CT NEP during 1990-1992 and their returned syringes (n=2,813), which had residual blood (analyzed for HIV Abs) and syringe-tracking codes, enabling calculation of needles' circulation time.	Needle exchange program (NEP).	Determine if syringe exchanging (i.e., decreased circulation time) or client shift (i.e., demographic change to lower risk group) had effect on reducing prevalence of HIV-infected needles (which was a criticism of earlier findings)	. HIV-infected needles declined from 68% to near 40% during study period. 2. Of various aggregate demographic and risk factor measures, only race changed significantly over time (proportion of whites increased); but no difference in needle seropositivity associated with race. 3. Increased circulation time was significantly associated with HIV-infected needles.	Study did not use traditional evaluation design and no true "control" included. However, reducing prevalence of HIV- infected needles seems a very relevant outcome to measure.
Kegeles et al. (1996)	300 young gay men (aged 18-29 yrs.; mean age: 23.4 yrs.) recruited from gay community in 2 West Coast cities: Eugene, OR (n=191) and Santa Barbara, CA (n=109). Intervention first implemented in Eugene.	The "Mpowerment Project": an 18-mo. community-level program using peer-led formal and informal outreach targeting young gay men; focused on safer sex; activities included personal contact, small group meetings, and social events. Strong emphasis on recruits to become personally vested in program.	Determine effect of project on: 1. Decreasing unprotected sex 2. Influencing various psychosocial factors: degree of enjoyment of unsafe sex, communication skills, perceived social norms regarding safe sex, etc.	Staggered (wait-list) pretest/posttest design found: 1. Significant decrease in any unprotected anal sex (41% to 30%); and in unprotected anal sex with primary partner (59% to 45%) and non-primary partner(s) (20% to 11%). 2. No significant effect on psychosocial factors.	Sample size on low side to test effect of a CLI; possibly limits validity of results

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Kelly et al. (1989)	Of the 104 gay men who participated in the study, 13% were African American or Hispanic and 87% were white. The average age of the participants was 31 years; 45% had completed college.	The intervention consisted of 12 weekly group sessions, each about 75 to 90 minutes. Groups were led by 2 clinical psychologists and 2 project assistants. The intervention used group process, lecture, and role-playing methods to deliver information and develop skills.	To determine the effects of a small group intervention to reduce the frequency of high-risk sexual practices and increase behavioral skills for refusing sexual coercion.	Gay men who participated in the intervention reduced their frequency of unprotected anal intercourse and increased their use of condoms significantly more than the men in the comparison condition.	This study is included in the "Compendium of HIV Prevention Interventions with Evidence of Effectiveness" from CDC's HIV/AIDS Prevention Research Synthesis Project.
Kelly et al. (1992)	Of the 1,469 gay men who completed anonymous baseline and post-intervention surveys in three cities, 9% were African American, 85% were white, and 5% were Hispanic or of other racial/ethnic groups. Average age was 29 years. From the same three cities, 75 gay men of similar race/ethnicity and age were trained as peer leaders.	This intervention was based on theories of peer influence, behavioral standards and social norms, and diffusion of innovations. Bartenders at gay clubs were enlisted to nominate opinion leaders, i.e., persons who were popular with others. The intervention was delivered in two parts: Part I. Popular opinion leaders received four sessions, 90 minutes each, of HIV education and communication strategies. Part II. Each opinion leader agreed to have at least 14 conversations with peers in the bars about AIDS risk reduction. Opinion leaders wore buttons with a logo that promoted the project and matched posters located in the bars. Buttons were ambiguous and served to trigger conversations. Gay bars.	To determine the effects of a community-level intervention to reduce high-risk behaviors.	Men from communities that received the intervention reported a significantly greater reduction in unprotected anal intercourse than the men from the comparison communities.	This study is included in the "Compendium of HIV Prevention Interventions with Evidence of Effectiveness" from CDC's HIV/AIDS Prevention Research Synthesis Project.

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Kelly et al. (1994)	187 inner-city, high sexual risk women aged 18-40 yrs. attending primary care clinic in Milwaukee, WI, 1991-92. Mean age 29 yrs; mostly African-American (87%); unemployed (97%); impoverished (75% had incomes < \$8,000/yr.)	Random assignment to: <ul style="list-style-type: none"> • Intervention (n=100): 4 weekly 90-min. group sessions at clinic (8-10 per group) plus 1-mo. group follow up session. Included HIV/AIDS information, skill-building/role-playing. • Comparison (n=87): 3 weekly 90-min. sessions on topics unrelated to AIDS (e.g., family/child). 	Change from baseline to 3-mo. follow up of intervention vs. comparison on: 1. High risk sexual behavior (i.e., condom use) 2. Risk knowledge, communication skills, and personal risk estimation	Randomized, controlled design found: 1. No effect on no. of male sexual partners; significant reduction in unprotected sex events; significant increase in condom use (26% to 56% vs. 26% to 32%). 2. Non-significant increases in knowledge and personal estimation of risk; significant increase in postponing sex until condom obtained and refusing sex without a condom.	Strong study design (RCT); but not very large sample size. Large loss-to-follow up; only 54% of intervention group and 44% of comparison group completed 3-mo. follow up.
Kirby et al. (1991)	Of the 758 students who participated in the study, 47% were male and 53% were female; 2% were African American, 2% were American Indian, 9% were Asian, 20% were Hispanic, 62% were white, and 5% were of other racial/ethnic groups. The average age was 15 years, and about 37% of the participants were sexually experienced prior to the study.	The intervention was carried out in 13 high schools in California. Health education classes offered the 15-session intervention as part of the 10th grade comprehensive health curriculum. Teachers who volunteered to implement the intervention attended a 3-day training session.	To determine the effects of a classroom intervention to postpone initiation of sexual intercourse and, among those sexually experienced, to reduce unprotected sex.	Students receiving the intervention were significantly less likely to initiate sexual intercourse than those in the comparison condition; intervention students who were already sexually experienced were significantly less likely to engage in unprotected intercourse than sexually active students in the comparison condition.	This study is included in the "Compendium of HIV Prevention Interventions with Evidence of Effectiveness" from CDC's HIV/AIDS Prevention Research Synthesis Project.

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Klee and Morris (1995)	<p>From 3 studies of IDUs in northwest England:</p> <ol style="list-style-type: none"> (1988-89): 266 opiate injectors (early stage of NEPs). Mean age: 27; 73% male. (1990-91): 102 amphetamine injectors. Mean age: 24; 71% male. (1991-93): 250 polydrug users; 90% reported heroin as first choice drug. Mean age: 27; 76% male; mean no. drugs used: 7.4; mean number injected: 3.7. 	NEPs in England.	<p>Evaluate:</p> <ol style="list-style-type: none"> Frequency of attendance at NEPs Frequency of participation in drug treatment > 6 months Relationship of NEP attendance and drug treatment enrollment on passing on/use of others' used needles/syringes 	<p>Cross-sectional surveys ("posttest-only") design found:</p> <ol style="list-style-type: none"> Increases in proportion reporting regular use of NEP: 32% (Study 1), 40% (Study 2), 65% (Study 3). Increasing participation in drug treatment: 29% (Study 1), 67% (Study 3). a. Study 1—No significant difference between regular and non-regular (occasional, none) NEP attenders on risky use. However, those attenders not in treatment more likely to engage in sharing. b. Study 2—Regular attenders more likely to abstain from risky use. c. Study 3—No relationship between reduced sharing and NEP attendance. 	<p>Weak study design (cross-sectional, no control group). Small categorical sample sizes.</p>
Landis et al. (1992)	<p>Of 534 HIV+ persons reported to health depts in rural N. Carolina (Nov. 1988 to June 1990). 162 (30%) were eligible and available for study; 74 cases participated and named 310 sex and needle sharing partners. Of these, 128 contacted; most were African-American (89%), male (76%), never used condoms (73%).</p>	<p>Random assignment of 74 index cases to either:</p> <ul style="list-style-type: none"> Provider referral (39 cases named 175 contacts): cases chose to notify partners; public health counselors attempted to notify remaining partners. Patient referral (35 cases named 153 contacts): cases initially had responsibility for notifying partners; but at end of 1 mo. counselors tried to locate partners not showing at health dept. 	<p>Evaluate efficacy of provider vs. patient referral by assessing:</p> <ol style="list-style-type: none"> Contact ratio Ratio of prior awareness of exposure Ratio tested Ratio of new HIV positives 	<p>Randomized field trial found:</p> <ol style="list-style-type: none"> Contact ratio (# notified/total identified) Total: 128/310=41%; Provider referral: 78/157=50% (44% by provider); Patient referral: 50/153=33% (6.5% by patient). Prior awareness (# aware/total notified) Total: 7/128=5.5%; Provider referral: 5/78=6.4%; Patient referral: 2/50=4.0%. Tested ratio (# tested/# notified) Total: 61/128=48%; Provider referral: 36/78=46%; Patient referral: 25/50=50%. Newly positive ratio (# testing pos/# tested) Total: 14/12 =11%; Provider referral: 9/36=25%; Patient referral: 5/25=20%. 	<p>Despite randomized design, sample sizes are small. Intervention categories were not mutually exclusive (makes it difficult to determine if any true differences between groups exist). No behavioral variables assessed.</p>

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Lauby et al. (2000)	3722 Sexually active inner-city women. Mean age: 25; 73% African American	In the intervention communities, 33 to 48 role-model stories were produced and 100,000 to 350,000 copies of the stories, formatted as fliers, brochures, posters, and newsletters, were distributed to women by project staff and at community distribution sites. Outreach workers were also employed to provide messages on the street and in workshops.	Determine the effect of a CLI on condom use behaviors.	Pretest/posttest with control communities found: 1. Increases in rates of talking with main partners about condoms were significantly larger in intervention communities. 2. Significant increases in the proportion of women who had tried to get their main partners to use a condom. 3. The trends for condom use with other partners were similar but not significant.	Strong study design. Large sample size.
Magura et al. (1994)	157 adolescent male inmates in New York City jail (Feb. 1991-Feb. 1992). Age range: 16-19 yrs.; (median age: 17.8 yrs.). Mostly African-American (65%), Hispanic (33%), and heterosexual (95%).	Small group-level (8 per group) AIDS education delivered in 4 twice weekly, 1-hour sessions focusing on relevant adolescent health issues, emphasizing HIV/AIDS risk reduction; approach based on Problem-Solving Therapy. Youths attending intervention (n=58) compared to wait list controls (n=99).	Assess impact of AIDS education intervention on: 1. Drug use (alcohol, marijuana, cocaine) 2. Multiple partners 3. No. of high-risk partners 4. Frequency of anal sex 5. Condom accessibility (condom carrying/buying) and acceptability 6. Use of condoms	Staggered pretest/posttest (wait-list control group) design found: 1. No effect on drug use. 2. No effect on reducing multiple partners. 3. No effect on reducing no. of high-risk partners. 4. No effect on frequency of anal sex. 5. No effect on accessibility; significant increase in acceptability. 6. Significant increase in condom use overall and for anal/oral and vaginal sex in particular.	Moderately strong study design.

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Main et al. (1994)	979 high school students in CO (from 17 urban and rural schools) matched for pretest and 6-mo. follow up (65% white, 21% Hispanic, 6% black, 3% Asian); 10 intervention schools, 7 control schools.	Teacher-led curriculum partly based on "Get Real About AIDS"—involved 15 sessions incorporating HIV-related knowledge, risky behavior, teen vulnerability, condom use, etc.—used skill training. Control schools encouraged not to start any new HIV ed., but continue with usual. A majority (4) offered no HIV ed.; the others offered HIV ed. to a minimal degree.	<ol style="list-style-type: none"> 1. Delay onset of sexual activity 2. Reduce activity among sexually active teens 3. Reduce no. of partners among sexually active teens 4. Increase condom use among sexually active teens 5. Increase HIV/AIDS knowledge 6. Improve skills for high-risk situations 	<ol style="list-style-type: none"> 1. No effect on onset of sexual activity (16% of HIV ed., 17% of controls originally abstinent initiated sexual activity at 6-mo. follow up. 2. Sexually active intervention students more likely to not engage in frequent sex (p=0.017). 3. Sexually active intervention students reported significantly fewer sexual partners (p=0.046). 4. Intervention students more likely to use a condom (p=0.039). 5. Intervention group showed significantly greater functional knowledge (p=0.004). 6. Self-efficacy measures (if any) not reported. 	About 1/3 of students reported having 'ever had sex' at baseline. Fairly large numbers involved; results are likely to be quite reliable.
Malow et al. (1994)	152 adult (20-50 yrs. old) male African-American cocaine abusers admitted to VA inpatient treatment program without history of mental illness/impairment and no evidence of HIV infection.	<p>Random assignment to:</p> <ul style="list-style-type: none"> • Psycho-educational (PE) program (n=76): 6-hr. small group (6-8) program; included cognitive/behavioral education with skills-building; based on ARRM model. • Information condition (INFO) (n=76): same format/content but delivered with didactic approach. 	<p>Measure effect of PE (vs. INFO) on:</p> <ol style="list-style-type: none"> 1. ARRM variables: knowledge, susceptibility, anxiety, self-efficacy, communication and condom skills 2. Risk status ("high" vs. "low") 3. No. of sexual partners 	<p>Pretest/Posttest + 3-mo. follow up design found:</p> <ol style="list-style-type: none"> 1. Pretest: Posttest: Significant increases for both groups on all measures except susceptibility and anxiety; PE significantly greater than INFO on self-efficacy, communication skills and condom skills; no effect for susceptibility and anxiety. 2. Significant reduction in proportion of "high-risk" for both, but greatest for PE: (75% to 32% , PE; (75% to 48% , INFO). 3. Significant reduction in no. of sexual partners for both, but greatest for PE: (76% to 48%, PE; 76% to 59% for INFO). 	Strong design (randomized trial); but no true control group utilized.

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Martin et al. (1995)	457 parole/work-release eligible inmates in Delaware (1990-1994); 328 (72%) African- American; 370 (81%) male.	Enrollment in a multistage therapeutic community (TC) for substance abusers; included prison-based KEY program (n=43), work release-based CREST program (n=176). Some (n=32) participated in both (KEY-CREST). Enrollees compared to eligible parolees not enrolled in TC programs.	Evaluate effect of KEY-only, CREST-only, KEY+CREST (vs. comparison) on: 1. Proportion remaining drug-free 2. Proportion remaining injection-free 3. Proportion using condoms	Pretest/ 6-mo. post-release posttest found: 1. While KEY increased percentage of drug-free, only CREST and KEY+CREST significantly increased drug-free percentage (84% & 94% vs. 38%). 2. Only CREST significantly increased percentage of injection-free (97% vs. 86%). 3. KEY and CREST showed increasing trend; but only KEY+CREST did so significantly (38% vs. 18%).	Specifics of TC components not explained. Small sample sizes for KEY and KEY+ CREST groups.
McCusker et al. (1992)	Of the 567 adult drug users who participated in the study, 67% were men and 33% were women; 81% were white; and 70% were high school graduates.	Informational and Enhanced AIDS Education for Drug Abusers: The Informational Education intervention consisted of two 1-hour sessions. The Enhanced Education intervention was delivered in six 1-hour sessions. When the six sessions were completed, participants received a 30-minute individual health education consultation.	To determine the effects of small group Informational and Enhanced Education interventions on drug- and sex-related HIV risk behaviors.	After exit from the program, participants in both interventions reported significant reductions in drug- and sex-related risk behaviors compared with their baseline level of risk. For two behaviors, drug injection and cocaine use, the Enhanced Education intervention had significantly greater effects than the Informational Education intervention.	This study is included in the "Compendium of HIV Prevention Interventions with Evidence of Effectiveness" from CDC's HIV/AIDS Prevention Research Synthesis Project.
McCusker et al. (1996)	4,267 persons receiving CT&R services at drug treatment (19%), prison (33%), or community (48%) sites in Worcester, MA from 1987-92. Mostly male (68%), white (69%) or Hispanic (25%) and nearly half were at IDU-risk: 38% IDUs themselves, 13% sex partners of IDUs.	Community-wide CT&R program which targeted IDUs and their sex partners. Counseling used "standard" format, including risk assessment, explanation of test and its results, referral to other services, planning of partner notification, etc.	Determine effect of CT&R among re-tested (n=207) on: 1. sexual behavior 2. risky needle behavior	Posttest-only design found: 1. No significant effect on sexual behavior. 2. Among IDUs (n=62), no significant reduction in needle risk except for a decrease in visits to shooting galleries.	Weak design and small sample sizes.

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McGowan et al. (1997)	1,053 IDUs attending methadone treatment programs in CT and MA; mean age 34.3 yrs, 55% male, mostly white (46%); 21% black, 28% Hispanic. 784 (74%) completed all 5 assessments: baseline, 3-, 6-, and 12-mo. follow up.	Standard" counseling and testing delivered in methadone treatment programs; counseling stressed personal risk reduction.	Determine effect of C&T on reducing: 1. Injection risk behavior 2. Sexual risk behavior	Pretest/multiple posttest design found: 1. No effect on injection risk; did find that increased injecting behavior significantly associated with testing positive for HIV. 2. Effect of intervention not directly measured; did find that increased time of counseling and positive test significantly associated with reduced no. of unprotected sex partners; also, positive test result associated with reduced unprotected sex events and increased use of condoms	Large sample size, but no control group. Reported data do not adequately support authors' blanket conclusion that C&T in methadone centers reduces IDU sexual risk.
Miller et al. (1995)	MSM attending 1-session GLI sponsored by Gay Men's Health Crisis and delivered monthly at the Gay and Lesbian Community Center in New York City. Sample: 202 eligible; 150 completing pretest/posttest (80% white, mean age = 36 yrs.).	A 1-session (5 hrs), small group discussion with experiential exercises (called "Keep It Up!") described as "community-based." Within group comparisons made as well as between group comparisons; staggered design used: groups not yet having the intervention served as control groups. Posttest done at 4 mos. after intervention.	To evaluate the effectiveness of the "Keep It Up!" workshop on affecting and maintaining: 1. Attitudes toward condoms 2. Beliefs about safer sex 3. Safer sex efficacy 4. Sexual behavior	In addition to measuring proportions, outcomes also measured by computing means and mean differences based on Likert-like scales: 1. Significantly increased between pretest and posttest (for within group and between groups). 2. Significantly increased between pretest and posttest (for within group and between groups). 3. Significantly increased between pretest and posttest (for within group and between groups). 4. No significant change.	A majority of men reported using condoms during anal sex at both assessments; numbers used to measure a positive behavior change was therefore very small.
Morton et al. (1996)	2,169 mostly white (70%) high school students in St. Louis, MO area. Mean age: 16.1 yrs., 56.4% sexually active; of those 70.4% had multiple partners and 61% admitted to unprotected sex. 1,596 (74%) completed posttest 3 wks. later.	HIV/AIDS educational program taught by medical students to classes of about 25 students each in an informal, discussion-type format.	Determine if intervention increases knowledge of HIV/AIDS.	Pretest/posttest-only design found small, but significant, gain in knowledge (via test scores) after intervention.	Weak study design (no control group), but did have large sample size. Only one outcome measured (knowledge); no measurement of behavior change.

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Nells and Harding (1995)	Surveys of inmates and staff at a Swiss prison housing up to 110 women. Serological analysis of syringes exchanged by 94 women during a 12-month period.	Syringe exchange via a one-to-one automatic dispenser.	Assess effectiveness of project by: 1. Measuring change in proportions of those using drugs 2. Measuring change in sharing behavior 3. Number of seroconversions for blood-borne pathogens (HIV, Hep B, Hep C)	Pretest/posttest-only design found: 1. Proportion of heroin/cocaine users (~40%) remained stable as did proportion injecting (~80%). 2. Decreased number of those reporting regular sharing of needles (~50% to near 0%). 3. No seroconversions found; at entry, prevalence of HIV=6%, Hep B=50%, Hep C=30%.	Fairly weak study design (no comparison group). Sample size not very large; no statistical tests were reported. Unique intervention for incarcerated IDUs.
Nura et al. (1996)	Individuals presenting for C&T at a hospital in Rome between 1985 and 1995. Total of 15,608 tested; 48% were women.	National AIDS Information Campaigns (CNI).	Evaluate CNI effect on testing trends: 1. Measuring numbers of persons being tested over time 2. Surveying subjects re: reason for seeking a test 3. Seropositivity rate over time	Cross-sectional (time-series) approach found: 1. Numbers of persons receiving C& T rose from 431 in 1985 to 2,828 in 1995. 2. Main reasons: multiple partners (28%), IV drug use (9%), sex with drug addicts/PWAs (12%), period. 3. Seropositivity decreased over time period.	Weak evaluation design (no comparison group).
O'Donnell et al. (1994)	3,348 STD clinic patients in South Bronx, NY in 1992; 60% African American, 40% Hispanic; approximately 60% male, 40% female	Random assignment to: • Video only: small group (3-8 persons) viewing 1 of 2 20-min videos (one for black audience, one for Latino audience). • Video + interactive session: after video viewing, a brief (20-min) group skill-building session led by facilitator in English or Spanish. • Control: received standard STD information routinely provided by staff.	Assess relative impact of interventions on condom use, as measured by an acquisition proxy: redemption of coupons at nearby pharmacy	Randomized controlled trial design found: 1. Significantly greater condoms acquired by video group vs. controls (27.6% vs. 21.2%). 2. Significantly more coupons still were redeemed by video + interactive session group vs. control: (36.9% vs. 21.2%). 3. The condom acquisition by the video + interactive group was significantly greater than video-only.	Strong study design. Large sample size.

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O'Donnell et al. (1998)	Of the 2004 adult males who participated in the study, 62% were African American and 38% were Hispanic. The average age of the participants was 30 years.	Two groups were compared. One group received the usual services offered by the STD clinic, the other viewed Video-based Patient Education to Supplement Provider Interactions.	To determine the effects of a small group intervention to reduce sexually transmitted disease (STD) infections subsequent to a clinic visit.	Men who participated in the intervention had a significantly lower rate of new STD infection than men in the comparison condition.	This study is included in the "Compendium of HIV Prevention Interventions with Evidence of Effectiveness" from CDC's HIV/AIDS Prevention Research Synthesis Project.
O'Neill et al. (1996)	92 HIV-negative female IDUs attending methadone clinic in Sydney, Australia in 1992-93. Mean age: 26 yrs.; 76% had IDU partner; 53% had ever engaged in sex work. 80 completed pre- and post-tests and 73 completed 9-mo. follow up.	Random assignment to: • Intervention (n=40): 6-session cognitive/behavioral individual counseling, 60-90 min. each, focusing on skills acquisition to prevent needle sharing relapse and unsafe sex. • Control (n=40): usual methadone treatment only.	Measure effect of intervention on: 1. Reducing needle risk behavior (i.e., increasing condom use) 2. Reducing sexual risk behavior	Randomized trial design found: 1. No significant effect at posttest. At 9-mo. follow up, significant reduction in needle sharing, but no change in frequency of injecting. 2. No effect.	Strong design (randomized trial), but very low sample sizes.
Paone et al. (1995b)	907 women attending NEPs in NY City during 1992-94 who had been to NEP at least once before. Mean age: 33.5 yrs.; mean no. yrs. injecting: 13.2; 38% Latina, 33% African-American, and 29% white. About 75% had been tested for HIV; 29% reported testing positive.	Random sample of NEP participants surveyed regarding drug and sex practices in past 30 days and their injection practices 30 days prior to first use of NEP.	Determine various descriptive statistics and measure change in risky injection behavior	A simulated pretest/posttest design found: 1. significant decrease in renting/buying used syringes, borrowing/using used syringes. 2. Increased use of bleach and alcohol pads. 3. Decreased backloading practices. 4. No change in mean no. of injections/mo.	No control group. Times between first-ever visit and survey visit not reported.

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Pavia et al. (1993)	244 cooperating index cases in Utah State's PN program, 1988-90, named 807 exclusive partners; 499 were contacted, of which 489 accepted counseling and testing. 39 were found to be newly HIV+.	Statewide contact tracing program.	1. Identify and educate sex and needle-sharing partners of HIV+ persons 2. Measure new STD incidence pre- and post-notification by matching names against surveillance records	1. 62% contact rate (499 contacted/807 named). 98% of contacts counseled (489/499); 87% (433/499) tested; 39% of contacts were HIV+ (193/499); only 8% found to be newly positive. 2. A nonsignificant reduction (86%) in new STD incidence was found (2.8 vs. 19.4 STD episodes per 1000 person-yrs.), RR=0.14, 95%CI:0.02-1.04.	Study was primarily a descriptive one. Effectiveness evaluation (STD episodes) based on small numbers probably explains why such a large difference was still not found to be statistically significant
Pele et al. (1996)	MSMs in France.	A summer media campaign (TV and press) about "living with HIV and AIDS" and how to protect oneself during anal intercourse. Total of 13 different ads to-date clearly depicting or discussing topics of hetero- and homosexual multipartnership and IV drug use.	Evaluate effect of media campaign by: 1. Assessing perception of campaign by general public (sample n=1,010) 2. Assessing perceptions of campaign by gay community (sample n=130)	Cross-sectional face-to-face surveys found: 1. Only 7% of general public sample reported being "shocked" by ads; only 14% described ads as "useless"; 86% wish to see it "regularly." 2. 87% of MSM sample were "personally concerned" as a result of the program; 50% now "feel closer to HIV-positive people."	Weak evaluation design.
Ragon et al. (1995)	123 college students enrolled in a required personal health course at mid-eastern university. Subjects were equally male or female; most were single (92%) and white (93%).	Students attended classes alternately assigned to: • Intervention (n=65): activity-centered one-hour AIDS education session. • No intervention control (n=58): no focused AIDS education.	Determine effect of brief, affective program on: 1. HIV/AIDS knowledge 2. Attitudes	Solomon 4-group pretest/posttest design found: 1. No effect on knowledge. 2. No effect on attitudes.	Fairly strong study design, but small categorical sample sizes.

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Reitmeijer et al. (1996)	1,997 IDUs sharing needles and/or having vaginal intercourse in Denver, CO or Long Beach, CA. Communities varied significantly by ethnicity and self-reported HIV seroprevalence. In Denver, about 1/3 ea. white, Hispanic, and black; in Long Beach, primarily black (51%). Seroprevalence was 5.1 for Denver vs 1.1 in Long Beach. (AIDS Community Demonstration Project)	Community-based outreach project targeting IDUs to increase use of bleach in cleaning shared needles and increasing use of condoms; utilized peer and trusted non-peer outreach workers and small media to disseminate messages, including role model stories. Denver, CO received intervention; Long Beach, CA was comparison community (no intervention).	Assess impact of intervention over 3 time periods (baseline, early and full implementation) on: 1. Exposure to program components 2. Consistent use of bleach 3. Consistent condom use with (a) occasional and (b) main partner	Two-community time series design found: 1. Exposure increased significantly in Denver (0% to 0.3% to 32%) vs Long Beach (0% to 0% to 2.8%). Exposure associated (nonsignificantly) with increased use of bleach (OR=1.8) and condoms with occasional partners (OR=1.7), but not main partners. 2. Nonsignificant differences observed for baseline and early implementation; at late intervention period, significant increase in use of bleach (OR=2.6). 3. a. No difference for baseline and early implementation periods; at late intervention, condom use increased significantly (OR=13.6). b. No effect at any time point on condom use with main partners.	Good sample size. Moderately strong study design.
Remafedi (1994)	139 MSM youth (91% gay, 9% bisexual), aged 13-21 yrs. old, who completed both pre- and posttest assessments. Subjects were primarily white and referred to intervention from several sources: peers, professionals, ads, outreach workers, etc.	Combined ILI and GLI sequence, but focus primarily on the individual. Intervention consisted of (1) individualized HIV risk assessment, risk reduction counseling and referral to services as needed; (2) one-time small group (~ 4 per group) peer education session; and (3) re-meet with case manager to correct any misinformation and/or reinforce HIV/AIDS prevention messages.	Evaluate impact of intervention on: 1. HIV/AIDS knowledge 2. Reduction of risk behaviors, including substitution of higher-risk behaviors with lower-risk ones.	Pretest/posttest design found: 1. No change in knowledge. 2. Significant reduction of substance abuse; significantly fewer events of unprotected anal sex (19% vs. 49%).	Weak study design (no control group).

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Rotherman-Bours et al. (1994)	136 male youths (14-19 yrs. old) attending a single gay-identified agency in NY City, 1988-89. Subjects primarily Hispanic (51%) and African-American (31%); 89% had ever had sex, 70% had been recently active (within last 3 mos.).	Rotating small group sessions: 20 sessions/3 wks., ~10/group; each session lasted 90–120 min. Activities addressed: HIV facts, coping skills, access to resources, safe sex practices, safe sex barriers, and attitudes towards homosexuality.	Measure short-term and long-term effect on: 1. Frequency of protected anal and oral sex 2. Practice of abstinence 3. Number of sexual partners	Pretest/multiple posttest (3-, 6-, 12-mo. follow up) design found: 1. Significant reduction in unprotected sex events over time. Significant predictors of greatest reduction: less risky behavior at baseline, not engaging in commercial sex, and more frequent attendance at intervention sessions. 2. Increased abstinence significantly more likely among younger and previously abstinent youths. 3. No. of partners remained stable (median=2 for all time points).	No control group included in design. Relatively small sample sizes for categorical analyses.
Rotherman-Bours et al. (1997)	Of the 312 runaway and homeless youths who enrolled in the study, 51% were male and 49% were female; 57% were African American, 22% were Hispanic, 16% were white or of other racial/ethnic groups, and race/ethnicity was unknown for 5%. The average age of the youths was 16 years.	The intervention consisted of 10 group sessions on a rotating basis, 3 times per week, repeated every 4 to 6 weeks, and one individual counseling session. The intervention had four primary components: 1. HIV-related knowledge. 2. Social skills. 3. Access to resources. 4. Personalized beliefs, attitudes and norms.	To determine the effects of a small group intervention to reduce HIV-related sexual and drug-related risk behaviors.	Adolescents who participated in the intervention reduced both the number of unprotected sexual acts and their substance use significantly more than adolescents in the comparison shelters.	This study is included in the "Compendium of HIV Prevention Interventions with Evidence of Effectiveness" from CDC's HIV/AIDS Prevention Research Synthesis Project.

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Santelli et al. (1995)	1,558 sexually active African-American women of childbearing age (17-35 yrs.) sampled over 3 time periods (1990, 1991, 1992) from an intervention community (in Baltimore, MD) and a comparison community (not specified). Sampling was cross-sectional and at street level.	Community-based HIV/AIDS prevention program using street outreach workers and small media to disseminate messages, including role model stories; APPLE (AIDS Prevention for Pediatric Life Enrichment) project aimed at preventing perinatal transmission by preventing primary infection in reproductive-aged women.	Evaluate impact of APPLE by assessing: 1. Exposure to APPLE 2. Change in community norms 3. Condom use (at last sex encounter) frequency	Time series with comparison group design found: 1. Significantly increased recognition of APPLE, contact with outreach workers, and exposure to small media materials. 2. Significant increase in community norms (via mean score on scale) in 1992 (16.7 vs 16.0) compared to 1991 (15.1 vs 15.8). 3. Condom use increased over time in both areas, but change was significantly greater for intervention group (30% to 40% vs 22% to 27%); within intervention group, use was greatest for those having contact with outreach workers (30% to 47%) vs no contact (25% to 33%).	Moderately strong study design. Large sample size.
Schonfeld et al. (1995)	189 elementary school students (grades K-6) at a public school in New Haven, CT who completed at least pre- and post-intervention assessments. 59% African-American, 26% Hispanic; 75% on free-lunch; 56% male.	Random assignment of classes to: • Educational group (n=95): Six 45- to 60-min. lessons over 3 wks.; covered general concepts of illness (germ theory), modes of illness transmission (specifically HIV), etc. • Control group (n=94): no intervention.	Assess impact of intervention on: 1. Understanding of concepts of causality and prevention of AIDS 2. Fear of AIDS	Pretest/posttest controlled design found: 1. For all grade levels, intervention students significantly increased understanding of causality and prevention of AIDS. 2. No significant effect.	Strong study design.

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Sellers et al. (1994)	Hispanic adolescents (n=536) aged 14-20 yrs. (94% Puerto Rican) from 2 northern U.S. cities (Boston, MA and Hartford, CT). 256 (48%) not yet sexually active.	18-mo. long community-level intervention targeting Latino youth in Boston in 1990; included various activities at schools, community centers, public media messages, and promotion and distribution of condoms. Subjects from Boston were compared to subjects from Hartford.	Assess effect of condom distribution and promotion on: 1. Onset of sexual activity 2. Number of multiple (2+) partners 3. Frequency of recent sex (6 mos. prior to follow up)	Pretest/posttest with non-equivalent control group design found: Effects differed by gender; adjusted results showed: 1. Significant reduction in onset of sexual activity in males; no difference in females. 2. No difference in number of multiple partners in males; significant reduction for females. 3. No difference on frequency of sex events for males or females.	Sample sizes relatively small for evaluations involving sexually active.
Shain et al. (1999)	549 women recruited from public health clinics in San Antonio, TX. Age range: 14-45 years; 71% were younger than 24. 58% Latina, 42% African American.	The intervention consisted of three small-group, multicomponent sessions. The sessions were led by highly trained facilitators of the same race or ethnic group; the groups met once a week for three consecutive weeks.	Determine the effect of GLI on: 1. Recognition of Risk 2. Commitment to Change 3. Acquisition of Skills	Baseline, 6mo, and 12mo follow-up found: 1. Women in the control group had more episodes of STD infection than women in the study group. 2. The STD infection rate in the intervention group 34 % less than that in the control group at 6 mo., 49 % less at 12 mo., and 38% less overall. 3. Women who attended all three sessions had an even lower rate of STD infection. 4. Significantly fewer women in the intervention group than in the control group were noncompliant with treatment protocols.	Strong study design (randomized controlled trial) Good sample size.

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Siegel et al. (1989)	381 adult IDUs in Ohio (1980-1989) recruited by outreach workers—232 assigned to standard counseling session; 149 to enhanced session (75% black, 74% male).	Two counseling strategies tested in conjunction with HIV testing: <ul style="list-style-type: none"> • Standard: 1-hour session with video and risk reduction kit (bleach, condoms, brochures). • Enhanced: three 1–2 hour group sessions/mo. on HIV/AIDS knowledge, drug use, and safe sex. 	<ol style="list-style-type: none"> 1. Decrease HIV exposure from needle use 2. Increase HIV/AIDS knowledge 3. Improve condom and needle skills 	<ol style="list-style-type: none"> 1. Both standard and enhanced intervention increased safe needle practices (66% and 73% respectively) from baseline (28%); difference between standard and enhanced not significant. Subset analysis of unsafe needle users (at baseline) showed standard and enhanced counseling improved safe needle use 58% and 71%; difference was statistically significant. 2. Knowledge not measured/reported. 3. Condom skills not measured/reported. 	Sample size not very large; however, results suggest that C&T may be effective in changing IDU behavior.
Siegel et al. (1995)	Students attending 2 junior high schools (grades 7-9) in northern CA in 1991 (N=557 matched for pretest and posttest). Students were primarily Asian- American (41%) and African-American (38%).	One school received intervention (N=434); second school did not (N=123). Intervention was an AIDS- prevention education program taught in 12 sessions over 3 wks. Included: sex ed., HIV biology, decision-making skills, public response to AIDS crisis, refusal skills, community resource	<ol style="list-style-type: none"> 1. Increase in AIDS knowledge 2. Improve AIDS attitudes 3. Reduce sexual risk taking 	<ol style="list-style-type: none"> 1. Increase in AIDS knowledge (mean score change) was significantly greater for intervention group. 2. Improvement in attitudes (e.g., tolerance toward people with AIDS) was significantly greater for intervention group. 3. No significant effect on sexual behavior (note: only sexually active included: N=96 for intervention group, N=20 for control group). 	Power of study to detect differences in AIDS knowledge and attitudes fairly good; but power is insufficient to draw any conclusions re: sexual behavior change.

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Sikkema et al. (1995)	43 female college students (> 95% white) aged 19-22 yrs. old, who were not in a long-term (> 1 year) relationship.	<p>Following a baseline assessment, participants randomly assigned to skill training (intervention) or education-only (comparison):</p> <ul style="list-style-type: none"> • Skills training (N=28): four 75–90-minute sessions over 4 wks. Incl.: discussion/cognitive-behavioral training on: risk behavior ed., self-management, assertiveness, decision making, negotiation, condom use, maintenance of safe sex. • Education-only (N=27): 1 90-minute session, didactic approach. 	<p>Measure effect of intervention just afterwards and 1-month later:</p> <ol style="list-style-type: none"> 1. Increasing HIV/AIDS knowledge 2. Increasing sexual assertiveness (42-item scale) 3. Increasing self-efficacy (7-pt. scale) 4. Increasing perceived vulnerability (6-item scale) 5. Decreasing risk-related behaviors 	<ol style="list-style-type: none"> 1. Significant increase in HIV/AIDS knowledge at posttest; no change from posttest at 1-mo. 2. Significant increase in assertiveness scores at posttest; no report of 1-month follow up. 3. Possible increase in self-efficacy at posttest; no change from posttest at 1-mo. follow up. 4. No effect on perceived vulnerability. 5. Little effect of intervention on reducing risk behaviors. 	<p>Both the education-only and the skills training tended to show desired increases and/or decreases. Results/analysis not very clearly presented for interpretation. Findings are not strongly supportive of authors' conclusions. No non-intervention control group.</p>
Sikkema et al. (1996)	700 inner-city women living in low-income housing developments in various U.S. cities.	<p>Multi-site field trial randomizing housing developments to:</p> <ul style="list-style-type: none"> • Intervention condition—AIDS education which incorporated peer influenced norm changes, skills training, etc. rates. • Comparison condition—received only educational materials and condoms. 	<p>Assess impact of intervention on:</p> <ol style="list-style-type: none"> 1. HIV risk knowledge 2. Condom acquisition 3. Condom barrier beliefs 4. Condom-protected intercourse 	<p>Pretest/posttest + 6 mo. follow up with comparison group design found:</p> <ol style="list-style-type: none"> 1. Significant increase in knowledge (no data given). 2. Significant increase in condoms requested via a redemption offer (no data given). 3. Significant decrease in barrier beliefs (no data presented). 4. Significant increase in condom-protected sex over time (20% to 36% to 40% for intervention vs 32% to 30% to 37% for control). 	<p>Pretty strong design. Good sample size. However, little supporting data offered; although trend for condom-protected sex is claimed to be significant, size of the trend difference appears small.</p>
Sikkema et al. (2000)	690 women living in 18 low-income housing developments. 75% African American, 20% White, 3% latina, 2% other	<p>In the nine intervention condition housing developments, a CLI was undertaken that included HIV risk reduction workshops and community HIV prevention events implemented by women who were popular opinion leaders among their peers.</p>	<p>Determine the effect of a CLI on sexual risk behavior.</p>	<p>Among women exposed to the intervention there was a decrease in:</p> <ol style="list-style-type: none"> 1. Unprotected intercourse in the past two months (50% to 37.5%) 2. Increase in condom use (30.2% to 47.2%) <p>The mean frequency of unprotected sex: baseline=6.0 follow-up=4.0</p>	<p>Strong study design. Large sample size.</p>

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Smith et al. (1995)	738 12th graders attending 3 public schools in small southern (S. Carolina) city; 734 completed all assessments. 59% white, 40% African-American. Ages ranged 16-21 yrs. (only 5 were older than 19).	All students attended an initial HIV/AIDS general instruction assembly; later the same day students attended one of 3 further intervention conditions (each 50 min.; one condition/school): <ul style="list-style-type: none"> • Question-and-answer (QA) • Presentation by young HIV-positive person (PWA) • Role-playing activity (RP). 	Determine effect of the various intervention approaches on: <ol style="list-style-type: none"> 1. Increasing/maintaining HIV/AIDS knowledge 2. Improving attitudes, particularly toward persons with AIDS (PWAs) 3. Reducing sexual risk behaviors 	Pretest/posttest with 1-mo. follow up design found: <ol style="list-style-type: none"> 1. All 3 made similar knowledge gains (however gain least maintained by PWA group). 2. No difference. 3. Proportion of RP students reporting sexual behavior change (65.9%) was significantly greater than proportions of other groups (QA: 46.7%; PWA: 45.3%). 	Good sample size (probably ~200 per intervention); however, no control or non-intervention group included.
Spencer et al. (1993)	Index cases: 231 HIV+ persons assigned to PN by CO Dept of Health in 1988; 226 interviewed; 190 reported unsafe behaviors; 124 named partners. Mostly white (68%); gay/bisexual (74%) non-IDU (72%); males (84%). Partners: 239 named; 188 contacted; 128 counseled; 80 tested; 17 found to be HIV+. Also mostly white (59%); gay/bisexual (64%); non-IDU (69%); males (81%).	Contact tracing with associated counseling, testing and referral; two referral approaches offered: <ul style="list-style-type: none"> • Provider referral: 91 cases (73%) named 180 partners (75%). • Patient referral: 33 cases (27%) named 59 partners (25%). Note: if patient referral was not successful, provider referral was initiated.	Describe results of: <ol style="list-style-type: none"> 1. Overall PN results 2. Patient vs partner referral efforts 	One-time survey" design found: <ol style="list-style-type: none"> 1. Overall: 98% of cases (226/231) agreed to be interviewed; 54% of cases (124/231) reported unsafe behaviors and named partners; 79% of partners (188/239) located; 68% (128/188) counseled and 42% (80/188) tested; 9% of partners located (17/188) tested positive. 2. Of located, eligible partners referred by index cases, 20% referred by patients vs 71% referred by providers; patient referral identified 8 (47%) of new positives vs provider referral identifying 4 (23%) [5 new positives not referred by either approach]. 	Primarily descriptive study. Intervention categories were not mutually exclusive (makes it difficult to determine if any true differences between groups exist). No behavioral outcomes assessed, but did show that patients referred 17 (57%) of the partners they intended to notify. Providers referred 71 (85%) of the partners they intended to notify.

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St. Lawrence et al. (1995a)	34 substance-dependent teens (13-17 yrs. old) in a residential drug treatment facility; 80% sexually active.	Random assignment to study behavioral skills training (BST) or education-only (EC) conditions: <ul style="list-style-type: none"> • BST (n=17): 6 90-min. sessions that included skills component as well as an education component. • EC (n=17): 6 90-min. sessions, but no skills training included. 	Pretest/Posttest design used to evaluate effect of BST (vs. EC) on: <ol style="list-style-type: none"> 1. HIV/AIDS knowledge 2. Attitudes towards prevention and condom use 3. Self-efficacy 4. Perception of vulnerability 5. Changing high-risk sexual behavior 	<ul style="list-style-type: none"> • Significantly increased knowledge (p=0.01). 2. Significantly increased attitudes (p=0.05). 3. Significantly increased self-efficacy (p=0.0001). 4. Significantly increased vulnerability perception (p=0.04). 5. Significantly influenced various behaviors: <ol style="list-style-type: none"> a. Reduced coercions into unwanted sex; b. Reduced exchanging sex for money; c. Reduced exchanging sex for drugs; d. Reduced casual sex events and engaging in sex with a known non-monogamous partner. 	Very small sample sizes limit accuracy and generalizability. No non-intervention control group included; limits study validity.
St. Lawrence et al. (1995b)	246 African-American teens (14-18 yrs. old) who were patients of a CHC in Mississippi. 225 completed posttest assessments (after intervention (2 mos.) and follow up at 6 and 12 mos.).	Following a baseline assessment, participants randomly assigned to Education-Only (EC) or Behavior Skills Training (BST): <ul style="list-style-type: none"> • BST (N not reported): 90- to 120-minute weekly group meetings over 8 wks. on: AIDS ed., sexual decision-making, technical, social and cognitive competency skills, social support and empowerment. • EC (N not reported): 2-hr. session using didactic approach primarily. Covered general information on HIV/AIDS and community resources. 	Measure the effect of BST compared to EC on: <ol style="list-style-type: none"> 1. Reducing unprotected intercourse 2. Increasing condom-protected intercourse 3. Increasing behavioral skills (reducing risk-related behaviors) 	Found significant interaction (i.e., different pattern and/or magnitude of effect) by gender: <ol style="list-style-type: none"> 1. Male teens in BST lowered rated of unprotected sex (all types) more than in EC and maintained lower rates at 1-yr. follow up. Females, in general, had lower rates overall and effect of BST vs. EC was varied. 2. Both male and female teens in BST significantly increased condom use; males showed gradual decline by 1-yr. follow up while females stable at 1-yr follow up. 3. 31% of EC teens abstinent on entry initiated sex after intervention compared to 11.5% in BST. 	Unique in looking at whether more explicit intervention was related to promoting increases in sexual behavior/accelerating onset. Strong study design (randomization). Only total sample size reported; categorical sizes are probably low. No non-intervention control group.

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Stall et al. (1996)	455 gay/bisexual men in substance abuse treatment, 1990-1991.	Sequential assignment to: <ul style="list-style-type: none"> • Enhanced treatment: substance abuse treatment using extensive risk reduction exercises. • Standard treatment: conventional substance abuse treatment only. 	Assess effect of enhanced vs. standard treatments on: the number of unprotected anal intercourse events with non-monogamous partner(s).	Pretest/multiple posttest (3-, 6-, 9- & 12-mo. follow up) design found that both groups showed significant reductions over time; no significant difference between enhanced and standard treatments.	Probably strong design; however, assignment may not have been completely random. Good sample sizes, assuming roughly equal distributions between treatment groups (Ns not specified).
Stanton et al. (1996)	383 African-American youths (9-15 yrs. old) recruited from 9 recreation centers associated with 3 public housing developments in a large eastern U.S. city. 213 (56%) male; 36% sexually active at baseline. 301 (78%) and 278 (73%) completed 6- and 12- mo. follow up, respectively.	Random assignment to: <ul style="list-style-type: none"> • Intervention (n=38 groups of 206 youths): weekly 8-session based on social cognitive model; targeted "natural friendship" groups (3-10 same-sex friends within 3 yrs of age of each other). • Comparison (n=38 groups of 177 youths): information-based sessions (less intensive). Condoms provided for both groups. 	Measure the short-term (6 mos) and long-term (12 mos) intervention impacts on: <ol style="list-style-type: none"> 1. HIV/AIDS knowledge and attitudes 2. Condom use 3. Intentions to use condoms 4. Perceptions of severity/vulnerability 	Pretest/multiple posttest with comparison group design found: <ol style="list-style-type: none"> 1. No effect on knowledge. 2. Significantly greater condom use at 6 mos., but not significantly different at 12 mos. 3. Significantly greater intentions for condom use at 6 mos., but not at 12 mos. 4. Significantly greater vulnerability perception at 6 mo., but not maintained at 12 mos. 	Strong study design (RCT).

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Voldiserri et al. (1989)	Of the 584 gay and bisexual men who participated in the study, 2% were African American, 95% were white, less than 1% were Hispanic, and less than 1% were Asian. The average age was 33 years, ranging from 19 to 73 years, and 33% of the participants had a college degree.	The intervention consisted of a lecture and a skills training session delivered in a 2-session small group format in a community-based organization. The 60- to 90-minute lecture component, led by a gay health educator, reviewed HIV transmission and the clinical outcomes of HIV infection, the risks of specific sexual practices, the importance of risk reduction through safer-sex practices, correct condom use, and interpretation of HIV antibody tests. The 140-minute skills-training session was led by a psychotherapist from a community organization that provides counseling services to sexual minorities.	To determine the effects of an educational intervention program that included skills training in addition to a small group lecture on sexual risk and protective behaviors.	Men who participated in the small group lecture plus skills training educational intervention showed a significant increase in condom use for insertive anal intercourse compared to those in the comparison condition.	This study is included in the "Compendium of HIV Prevention Interventions with Evidence of Effectiveness" from CDC's HIV/AIDS Prevention Research Synthesis Project.
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Wanger et al. (1992)

Of the 186 heterosexual adults who participated in the study, 67% were men and 33% were women; and 88% were African American; 84% had completed high school; and 43% were unemployed. The average age was 28 years, ranging from 18 to 66 years.

The intervention consisted of an educational component and an HIV blood test. The educational component included (a) a written pamphlet that explicitly discussed safer and unsafe sexual acts and explained condom use; (b) a 15-minute video that examined HIV-risk behavior and promoted condom use as well as discussing the risk with sex partners; and (c) a 10-minute, one-on-one counseling session with a physician. The counseling session focused on assessing personal risk, discussing the elements of HIV testing, and answering any questions about HIV/AIDS or testing.

To evaluate the effects of HIV education and testing on sexual risk behavior.

Participants who received the HIV education and testing intervention reported significantly fewer occurrences of unprotected intercourse than did those in the comparison condition. (HIV education only)

This study is included in the "Compendium of HIV Prevention Interventions with Evidence of Effectiveness" from CDC's HIV/AIDS Prevention Research Synthesis Project.

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Watters et al. (1994)	Various samples from a cohort (n=5,644) of IDUs in SF, CA during 1986-1992; mostly African-American (45%), 34% white, 14% Latino; mostly male (69%); unemployed (78%); mean age: 36 yrs.	All-volunteer NEP.	Evaluate: 1. How readily and to what degree has NEP been utilized 2. Effect of NEP on injection drug use (i.e., injecting frequency, and recruitment of new/younger IDUs) 3. Whether use of NEP was predictive of abstinence from syringe sharing	Time-series/cross-sectional design found: 1. Significant increase in NEP as source of syringes (<5% to 45%); significant increase in ratio of syringes exchanged per client (2 to 21) and in no. of clients exchanging syringes for others (9.9% exchanging for mean 4.3 others to 15.2% exchanging for mean 10.3 others). 2. Mean age increased 35.8 yrs. to 41.6 yrs.; no significant change in minimum age. No. of new IDUs (injecting < 1 yr) decreased 3.0% to 1.1%. 3. NEP use significantly associated with needle sharing abstinence (OR=0.54). Also significant predictors: HIV C&T, 100% condom use, older age, and African-American race.	Fairly weak design; no control group.
Weibel et al. (1996)	641 HIV-negative, out-of-treatment IDUs recruited in HIV-prevention community outreach program in Chicago, IL during 1988-92. Mostly male (76%); adults (64% 18-40 yrs. old); and African-American (53%).	Street outreach program targeting out-of-treatment IDUs. CLI employed former IDUs as outreach workers to advocate adoption of safe needle and sex practices.	Determine effect of outreach on: 1. Incidence of seroconversion 2. Prevalence of drug risk behaviors 3. Prevalence of sex risk behaviors	Prospective pretest/multiple posttest design found: 1. HIV seroincidence fell significantly, from 8.4 to 2.4 per 100 person-years. 2. Prevalence of risky drug behavior fell from 100% to 14%. 3. Prevalence of risky sexual behavior fell 71% to 45%.	Nontraditional analytic approach used (proportional hazard model)—didn't include a true "intervention control."

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Wexler et al. (1994)	394 IDU parolees from prisons in NY City area. Mean age 34.9 yrs; mostly male (81%); black (57%) and Hispanic (33%); heterosexual-identifying (92%); and never using a condom during vaginal sex (64%), anal sex (76%), or oral sex (85%).	Project ARRIVE (AIDS Risk Reduction for IV Drug Users on Parole), 1987-90. Strong self-help orientation, incl. job readiness and placement, with AIDS prevention education skills-building; 8 wk. 24-session program. Subjects sampled from program graduates (n=141) and recruits that never attended (n=96).	Measure effect of ARRIVE graduates vs. non-attendeé parolees on: 1. Drug use behaviors 2. Sexual risk behaviors 3. HIV/AIDS knowledge	Pretest/posttest with comparison group design found: 1. No effect on incidence of drug injection, use of cocaine/heroin, or sharing of "works"; significant effect on lowering relapse to steady (regular) injection, less recreational use of drugs, and fewer IDU friends. 2. Significant effect on increasing condom use and decreasing sex with high-risk partners. 3. No effect on HIV/AIDS knowledge.	AIDS knowledge high for both groups at baseline; perhaps little room for significant improvement. Moderately strong study design, but fairly low sample size.
Wykoff et al. (1998)	From a single HIV-positive index case, 133 sex contacts identified, samples of whom were used to evaluate various outcomes. 111 were tested and re-interviewed 6 mos. later. Contacts primarily were African American and gay/bisexual men from rural South Carolina.	Contact tracing with associated counseling, testing and referral.	To evaluate PN results by reporting the following measures: 1. Proportion contacted and tested 2. Proportion testing HIV-positive 3. Proportions reporting anal sex practices (receptive, insertive) 4. Mean no. of sexual contacts pre- and post-PN interview 5. Proportion using condoms pre- and post-PN interview	Pretest/6-month follow up design found: 1. 111/133 contacted and tested = 83%. 2. 12/111 testing positive for HIV Abs = 11%. 3. Of 25 men reporting receptive anal sex, 13 (52%) HIV+; of 43 men reporting strictly insertive anal sex, zero HIV+. 4. For sample of HIV+ (n=8), mean no. of sex contacts decreased 82% (7.1 to 3.0); for sample of HIV- (n=36), mean no. of sex contacts decreased 54% (4.1 to 1.9). 5. For HIV+ sample (n=8), report of any condom use increased from 0 to 4; for HIV- sample (n=36), it increased from 0 to 25.	Study focus was primarily descriptive; behavior change outcomes assessed based on very small sample size.

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Wykoff et al. (1991)	485 named contacts of HIV-positive index cases in a rural health district in S. Carolina; 290 contacted and offered testing, 280 accepted: 53 women, 227 men. Age range: 14-74 yrs. 49 of the 280 tested HIV+.	Regional confidential, voluntary partner notification.	1. Identify and educate sex and needle-sharing partners of HIV+ persons 2. Evaluate prevention effectiveness by measuring mean no. of sex partners pre- and post-notification	1. 290 contacted / 485 named = 60% contact rate; 97% of contacts (280/290) tested and counseled; 17% HIV-positives found (49/290). 2. Two-tier evaluation: a. For HIV+ partners, mean no. sex partners decreased 80% (5.6 to 1.1). b. For HIV- partners, mean no. sex partners decreased 50% (4.0 to 2.0).	Results are descriptive; no statistical tests performed.
Yarber and Torabi (1997)	305 8th grade students enrolled in health science classes at public, suburban middle school in large Midwest city. 50% female, 67% white. Age range: 13-15 yrs. old.	305 8th grade students enrolled in health science classes at public, suburban middle school in large Midwest city. 50% female, 67% white. Age range: 13-15 yrs. old.	Evaluate effect if intervention on: 1. Attitudes, beliefs, feelings, and intentions to act 2. Knowledge	Pretest/posttest + 1-mo. follow up with control group design found: 1. Significant increase for all measures at immediate posttest; trends non-significant at 1-mo. follow up. 2. No effect on knowledge.	Fairly strong study design with decent sample size.
Yauby et al. (1998)	Women in the intervention communities reported a greater increase in consistent condom use with non-main partners than women in the comparison communities.	The intervention (Real AIDS Prevention Project (RAPP)) aimed to modify attitudes and beliefs about prevention methods among the community women by providing models of successful risk-reduction strategies adopted by members of the target population. The intervention included 3 components: a media campaign, outreach, and community mobilization.	To determine the effects of a community-level intervention to increase condom use with main and non-main partners.	Women in the intervention communities reported a greater increase in consistent condom use with non-main partners than women in the comparison communities.	This study is included in the "Compendium of HIV Prevention Interventions with Evidence of Effectiveness" from CDC's HIV/AIDS Prevention Research Synthesis Project.

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