



Brief Communication 2002-2

HIV Drug Holidays Among the CHAIN Cohort

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C.H.A.I.N. REPORT

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KEY FINDINGS

- Structured treatment interruptions, more commonly known as “drug holidays,” have recently emerged in the HIV/AIDS literature as a possible tool in a therapeutic regimen. Little is known, however, as to the prevalence of drug holidays – both doctor-advised and self-imposed – among the community of HIV-positive adults outside of tightly controlled clinical trials. This Brief Communication presents preliminary data from the NYC CHAIN cohort, a representative sample of HIV-positive adults in the city’s health and social services care system. These data were collected at the 8th wave of interviewing, between April 2001 and July 2002. Among 388 respondents in this round of interviews, 352 were on antiretroviral therapy or responded to questions about drug holidays.
- Overall, slightly more than one-quarter of the 352 respondents reported a drug holiday in the past six months. Of those 98 individuals, approximately three-quarters decided on their own to attempt a drug holiday. This means that over one-fifth of all respondents on therapy have elected on their own to try a drug holiday, without consulting their medical provider. The average length of a drug holiday is 20.8 days. 83% of those reporting a drug holiday said that they have either returned to their medication regimens or plan to.
- When sociodemographic, health, risk, and medical provider characteristics are considered, very few statistically significant subgroup differences emerge. This could be due to the very small numbers when the larger group is divided in to subgroups.
- There were some subgroup differences. Individuals with t-cell counts above 500 were more likely to report that the decision to initiate a drug holiday was made in consultation with their medical provider. Current drug users were far more likely to report recent drug holidays (46%) than were people who were former users (23%) or who have never used drugs (20%).
- Table 1 illustrates the variables used in the subgroup analyses. Tables 2 through 9 illustrate the relationship between these variables and the outcomes of interest – whether individuals report drug holidays, the average length of a drug holiday, whose decision it was to engage in a drug holiday, and their intention of returning to their HIV medication regimen. All the percentages in the tables are row percentages.

Table 1. Independent Variables

Sociodemographic characteristics	
<i>Gender</i>	Respondent's self-report of gender
<i>Race/Ethnicity</i>	Black, non-Hispanic; White, non-Hispanic; Hispanic
<i>Age group</i>	Respondent's age at interview (20-34, 35-49, 50+)
<i>Educational Level</i>	Respondents report less than a high school diploma
<i>Household income</i>	Total household income less than \$10,000 in past year
Health characteristics	
<i>T-cell count</i>	Self-reported CD4 count (<200, 201-500, >501)
<i>Opportunistic infection</i>	Reported OI in prior 6 month period
<i>Self reported physical health status</i>	Scored on MOS Physical Component Summary Scale (PCs<45.0 is low)
<i>Self reported mental health status</i>	Scored on MOS Mental Component Summary Scale (PCs<37.0 is low)
Risk	
<i>HIV risk behavior</i>	Self reported as MSM; MSM + IDU; IDU; Other
<i>Drug Use</i>	Self reported as current user; former user; never used
<i>Unstable housing</i>	Any unstable or doubled-up housing in past year
Medical provider characteristics	
<i>Provider organizational type</i>	Private MD, HHC, Voluntary hosp, CHC
<i>Preferred medical practice pattern</i>	Primary medical provider meets minimum clinical practice guidelines
<i>Continuity of medical provider</i>	Same or changed medical provider between waves 7 and 8
<i>Client satisfaction</i>	Client-reported satisfaction with primary medical provider

Table 2. CHAIN Client Sociodemographic Characteristics Associated with HIV Medication Interruptions, also known as “Drug Holidays” (NYC CHAIN Data, 2001-2002; row percentages)

Client Characteristics	Total n	Reported Drug Holiday in Prior 6 months	% on Drug Holiday	Among those reporting a treatment interruption, average # days on drug holiday
TOTAL SAMPLE	352	98	28%	20.8
GENDER				
<i>Male</i>	181	46	25%	16.3
<i>Female</i>	171	52	30%	24.5
RACE/ETHNICITY				
<i>Black, non-Hispanic</i>	219	64	29%	19.5
<i>White, non-Hispanic</i>	42	10	24%	15.6
<i>Hispanic</i>	88	22	25%	26.2
AGE GROUP				
<i>20-34 years old</i>	57	18	32%	28.3
<i>35-49 years old</i>	236	67	28%	19.2
<i>50+ years old</i>	59	13	22%	18.5
EDUCATIONAL LEVEL				
<i>Less than high school education</i>	167	46	28%	22.7
<i>High school graduate</i>	185	52	28%	19.0
HOUSEHOLD INCOME				
<i>Less than \$10,000 annual income</i>	202	56	28%	22.9
<i>Greater than \$10,000 annual income</i>	143	40	28%	17.9

* p < .05

** p < .01

*** p < .001

Table 3. CHAIN Client Sociodemographic Characteristics Associated with Drug Holiday Decisions (NYC CHAIN Data, 2001-2002; row percentages)

Client Characteristics	Total on Drug Holiday	Decision to take a Drug Holiday				Decision to return to HIV Medications					
		Solely respondent's		Together w/MD		Currently taking		Intends to return		Does NOT plan to return	
		n	%	n	%	n	%	n	%	n	%
TOTAL SAMPLE	98	74	76%	23	24%	50	51%	31	32%	17	17%
GENDER											
<i>Male</i>	46	38	84%	7	16%	27	59%	13	28%	6	13%
<i>Female</i>	52	36	69%	16	31%	23	44%	18	35%	11	21%
RACE/ETHNICITY											
<i>Black, non-Hispanic</i>	64	49	77%	15	23%	31	49%	20	32%	12	19%
<i>White, non-Hispanic</i>	10	7	78%	2	22%	7	70%	2	20%	1	10%
<i>Hispanic</i>	22	17	77%	5	23%	10	43%	9	39%	4	17%
AGE GROUP											
<i>20-34 years old</i>	18	12	67%	6	33%	4	22%	9	50%	5	28%
<i>35-49 years old</i>	68	51	77%	15	23%	39	57%	20	29%	9	13%
<i>50+ years old</i>	13	11	85%	2	15%	7	58%	2	17%	3	25%
EDUCATIONAL LEVEL											
<i>Less than high school education</i>	47	33	70%	14	30%	20	43%	16	35%	10	22%
<i>High school graduate</i>	52	41	82%	9	18%	30	58%	15	29%	7	13%
ANNUAL HOUSEHOLD INCOME											
<i>< \$10,000</i>	57	42	74%	15	26%	24	43%	20	36%	12	21%
<i>≥ \$10,000</i>	40	31	79%	8	21%	24	60%	11	27%	5	13%

* p < .05

** p < .01

*** p < .001

Table 4. CHAIN Client Health Characteristics Associated with HIV Medication Interruptions, also known as “Drug Holidays”(NYC CHAIN Data, 2001-2002; row percentages)

Client Characteristics	Total n	Reported Drug Holiday in Prior 6 months	% on Drug Holiday	Among those reporting a treatment interruption, average # days on drug holiday
TOTAL SAMPLE	352	98	28%	20.8
T-CELL				
<i>≤200</i>	69	26	38%	24.0
<i>201-500</i>	156	44	28%	16.5
<i>≥501</i>	127	28	22%	24.5
OPPORTUNISTIC INFECTION (OI)				
<i>OI last 6 months</i>	118	39	33%	17.0
<i>No OI last 6 months</i>	234	59	25%	23.3
PHYSICAL HEALTH STATUS				
<i>Low (PCS<45.0)</i>	182	54	30%	17.4
<i>High (PCS≥45.0)</i>	168	43	26%	23.3
MENTAL HEALTH STATUS				
<i>Low (MCS<37.0)</i>	77	25	32%	19.3
<i>High (MCS≥37.0)</i>	273	72	26%	20.3
LEVELS OF ADHERENCE (Among those currently on antiretroviral therapy)				
<i>Completely adherent</i>	179	28	16%**	12.2
<i>Less than completely adherent</i>	85	27	32%	9.1

* p < .05

** p < .01

*** p < .001

Table 5. CHAIN Client Health Characteristics Associated with Drug Holiday Decisions (NYC CHAIN Data, 2001-2002; row percentages)

Client Characteristics	Total on Drug Holiday	Decision to take a Drug Holiday				Decision to return to HIV Medications					
		Solely respondent's		Together w/MD		Currently taking		Intends to return		Does NOT plan to return	
		n	%	n	%	n	%	n	%	n	%
TOTAL SAMPLE	98	74	76%	23	24%	50	51%	31	32%	17	17%
T-CELL											
≤200	26	22	85%	4	15%	15	58%	5	19%	6	23%
201-500	44	36	82%	8	19%	22	51%	17	40%	4	9%
≥500	27	16	59%*	11	41%	13	45%	9	31%	7	24%
OPPORTUNISTIC INFECTION (OI)											
OI last 6 months	39	31	79%	8	21%	24	63%	10	26%	4	11%
No OI last 6 mo.	58	43	74%	15	26%	26	43%	21	35%	13	22%
PHYSICAL HEALTH STATUS											
Low (PCS<45.0)	55	40	73%	15	27%	27	50%	17	31%	10	19%
High (PCS>45.0)	43	34	83%	7	17%	23	54%	13	30%	7	16%
MENTAL HEALTH STATUS											
Low (MCS<37.0)	25	19	76%	6	24%	12	48%	9	36%	4	16%
High (MCS>37.0)	72	55	77%	16	23%	38	53%	21	29%	13	18%
LEVELS OF ADHERENCE											
Completely adherent	179	25	89%	3	11%	27	96%	1	4%	0	0%
Less than completely adherent	85	20	77%	6	23%	20	74%	6	22%	1	4%

* p < .05

** p < .01

*** p < .001

Table 6. CHAIN Client Risk Characteristics Associated with HIV Medication Interruptions, also known as “Drug Holidays”(NYC CHAIN Data, 2001-2002; row percentages)

Client Characteristics	Total n	Reported Drug Holiday in Prior 6 months	% on Drug Holiday	Among those reporting a treatment interruption, average # days on drug holiday
TOTAL SAMPLE	352	98	28%	20.8
HIV RISK BEHAVIOR				
<i>MSM</i>	64	15	23%	19.4
<i>MSM & IDU</i>	32	7	22%	30.9
<i>IDU</i>	138	38	28%	15.4
<i>Other</i>	118	38	32%	24.8
DRUG USE				
<i>Current</i>	69	32	46%***	20.3
<i>Former</i>	224	51	23%	23.1
<i>Never</i>	59	15	25%	13.9
HOUSING STABILITY				
<i>Stably housed</i>	310	88	28%	20.7
<i>Unstably housed or doubled-up</i>	42	10	24%	21.8

* p < .05

** p < .01

*** p < .001

Table 7. CHAIN Client Risk Characteristics Associated with Drug Holiday Decisions (NYC CHAIN Data, 2001-2002; row percentages)

Client Characteristics	Total on Drug Holiday	Decision to take a Drug Holiday				Decision to return to HIV Medications					
		Solely respondent's		Together w/MD		Currently taking		Intends to return		Does NOT plan to return	
	n	n	%	n	%	n	%	n	%	n	%
TOTAL SAMPLE	98	74	76%	23	24%	50	51%	31	32%	17	17%
HIV RISK BEHAVIOR											
<i>MSM</i>	15	10	71%	4	29%	9	60%	4	27%	2	13%
<i>MSM & IDU</i>	7	7	100%	0	0%	3	43%	3	43%	1	14%
<i>IDU</i>	39	27	69%	12	31%	20	53%	13	34%	5	13%
<i>Other</i>	38	30	81%	7	19%	18	47%	11	29%	9	24%
DRUG USE											
<i>Current</i>	31	26	84%	5	16%	17	55%	12	39%	2	6%
<i>Former</i>	52	35	69%	16	31%	24	46%	14	27%	14	27%
<i>Never</i>	15	13	87%	2	13%	9	60%	5	33%	1	7%
HOUSING STABILITY											
<i>Stably housed</i>	88	64	74%	23	26%	45	51%	28	32%	15	17%
<i>Unstably housed or doubled-up</i>	10	10	100%	0	0%	5	50%	3	30%	2	20%

* p < .05

** p < .01

*** p < .001

Table 8. Medical Provider Characteristics Associated with HIV Medication Interruptions, also known as “Drug Holidays” (NYC CHAIN Data, 2001-2002; row percentages)

Client Characteristics	Total n	Reported Drug Holiday in Prior 6 months	% on Drug Holiday	Among those reporting a treatment interruption, average # days on drug holiday
TOTAL SAMPLE	352	98	28%	20.8
PROVIDER ORGANIZATIONAL TYPE				
<i>Private MD</i>	53	18	34%	11.7
<i>HHC (non Desig AIDS Ctr)</i>	49	15	31%	16.5
<i>Vol. Hosp (non Desig AIDS Ctr)</i>	12	2	17%	20.0
<i>Designated AIDS Center</i>	172	44	26%	24.0
<i>CHC, drug treatment, and other clinics</i>	59	17	29%	22.8
PREFERRED MEDICAL PRACTICE GUIDELINES				
<i>Minimum clinical practice guidelines met</i>	254	67	26%	22.2
<i>Minimum clinical practice guidelines not met</i>	98	31	32%	17.6
CONTINUITY OF MEDICAL PROVIDER				
<i>Same med provider at consecutive interview rounds</i>	268	68	25%	19.4
<i>Changed med provider at consecutive interview rounds</i>	79	28	35%	23.0
SATISFACTION WITH MEDICAL PROVIDER				
<i>“Very satisfied” with medical provider</i>	303	77	25%	21.7
<i>Less than “very satisfied” with medical provider</i>	43	19	44%	14.8

* p < .05

** p < .01

*** p < .001

Table 9. Medical Provider Characteristics Associated with Drug Holiday Decisions (NYC CHAIN Data, 2001-2002; row percentages)

Client Characteristics	Total on Drug Holiday	Decision to take a Drug Holiday				Decision to return to HIV Medications					
		Solely respondent's		Together w/MD		Currently taking		Intends to return		Does NOT plan to return	
	n	n	%	n	%	n	%	n	%	n	%
TOTAL SAMPLE	98	74	76%	23	24%	50	51%	31	32%	17	17%
PROVIDER ORGANIZATIONAL TYPE											
<i>Private MD</i>	18	12	75%	4	25%	11	61%	6	33%	1	6%
<i>HHC (non Desig AIDS Ctr)</i>	15	11	73%	4	27%	7	47%	5	33%	3	20%
<i>Vol. Hosp (non Desig AIDS Ctr)</i>	2	2	100%	0	0%	1	50%	0	0%	1	50%
<i>Designated AIDS Center</i>	45	34	76%	11	24%	23	52%	14	32%	7	16%
<i>CHC, drug treatment, and other clinics</i>	17	13	76%	4	24%	8	47%	5	29%	4	24%
PREFERRED MEDICAL PRACTICE GUIDELINES											
<i>Minimum clinical practice guidelines met</i>	68	50	74%	18	26%	35	52%	20	30%	12	18%
<i>Minimum clinical practice guidelines not met</i>	31	24	83%	5	17%	15	48%	11	35%	5	16%
CONTINUITY OF MEDICAL PROVIDER											
<i>Same med provider at consecutive interviews</i>	67	54	81%	13	19%	36	54%	22	33%	9	13%
<i>Changed med provider at consecutive interviews</i>	29	18	64%	10	36%	14	48%	8	28%	7	24%
SATISFACTION WITH MEDICAL PROVIDER											
<i>"Very satisfied" with medical provider</i>	77	56	73%	21	27%	40	52%	22	29%	15	19%
<i>Less than "very satisfied"</i>	19	16	89%	2	11%	10	53%	8	42%	1	5%

* p < .05

** p < .01

*** p < .001