

# RECENT DRUG USE, HOMELESSNESS AND SHORT-TERM MORTALITY IN HIV-INFECTED PERSONS WITH ALCOHOL PROBLEMS

A.Y. WALLEY<sup>1</sup>; D.M. CHENG<sup>1</sup>; H. LIBMAN<sup>2</sup>; D. NUNES<sup>1</sup>; C.R. HORSBURGH<sup>1</sup>; R. SAITZ<sup>1</sup>; J.H. SAMET<sup>1</sup>  
<sup>1</sup>Boston University, Boston, MA; <sup>2</sup>Harvard University, Boston, MA



## BACKGROUND

- Mortality among HIV-infected patients has improved due to antiretroviral therapy (ART)
- The impact of alcohol use, drug use and homelessness on mortality is less clear

## HYPOTHESIS

Recent heavy alcohol use, heroin or cocaine use, and homelessness are associated with increased short-term mortality in HIV-infected patients with alcohol problems

## SUBJECTS AND DATA COLLECTION

595 HIV-infected patients with current or past alcohol problems recruited from 1997 to 2003 to investigate HIV disease progression  
 Interview/lab tests every 6 months THROUGH 2005 included:

Housing status, health status,<sup>1</sup> anti-retroviral therapy (ART) use & adherence,<sup>2</sup> alcohol use,<sup>3</sup> drug use,<sup>4</sup> depressive symptoms,<sup>5</sup> CD4

Deaths identified with 1997-2005 data from Social Security Death Index, National Death Index

<sup>1</sup>SF-12, <sup>2</sup>ACTG Adherence Scale, <sup>3</sup>30 day timeline follow-back, <sup>4</sup>Composite International Diagnostic Interview-Drug, <sup>5</sup>Center for Epidemiologic Studies Depression Scale

## STATISTICAL ANALYSES

OUTCOME: Short-term mortality = Death within 6 m of last study assessment

MAIN INDEPENDENT VARIABLES: *Time-varying*, measured each assessment

1. **Heavy alcohol** (>3 drinks/1 day, or >7/wk for women, >4/>14 for men, past 30days)
2. **Heroin or cocaine use** (past 6 months)
3. **Homelessness** (any nights, street or shelter past 6 months)

CONFOUNDERS: Age, sex, ethnicity, past IDU, CD4, ART use, depressive symptoms, health status

Unadjusted and adjusted Cox proportional hazards models fit to data

## RESULTS

### Subject characteristics

	N=595
Age Mean (SD)	41 (7.43)
Male	75%
Ethnicity	
African-American	41%
White	34%
Other	25%
CD4 <200	24%
Past IDU	60%

### Modifiable characteristics

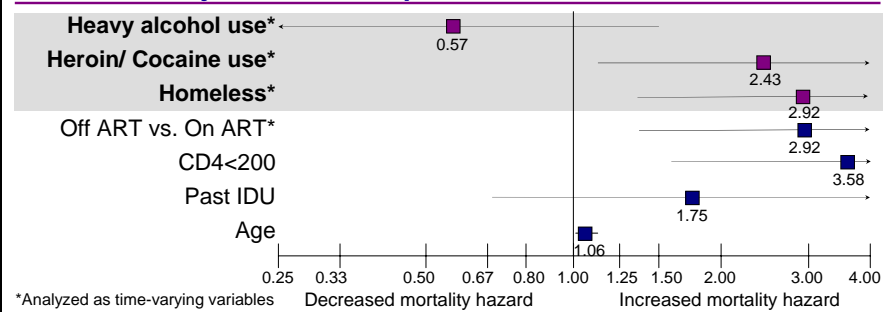
	N=595
ART adherence	
Off ART	40%
On ART, Not adherent	18%
On ART, Adherent	42%
Depressive symptoms	49%
<b>Heavy alcohol, past 30d</b>	30%
<b>Heroin/cocaine, past 6m</b>	37%
<b>Homeless, past 6m</b>	28%

### Causes of Death

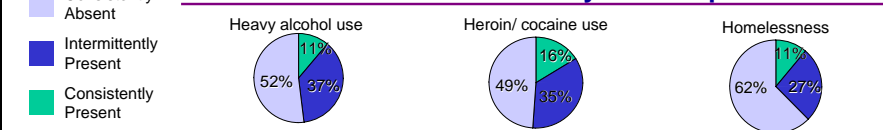
	N (%)
Overdose	7 (23)
Liver-related	6 (19)
HIV-related	5 (16)
Infection-related	3 (10)
Cancer	2 (6)
Trauma	2 (6)
Cardiovascular	1 (3)
Other	5 (16)

**Crude Short-Term Mortality:** 31 deaths (5.2%)  
**Mean Follow-up:** 2.7 years

### Adjusted Cox Proportional Hazards Model



### Patterns over study follow-up



## LIMITATIONS

- Cannot establish causal relationships
- Number of deaths limits the number of variables in the adjusted model

## CONCLUSIONS

- Recent heroin or cocaine use and homelessness are associated with increased short-term mortality in HIV-infected patients with alcohol problems
- Optimal treatment for HIV patients should include regular assessments of drug use and homelessness and access to drug treatment and housing