

# Primary Care-based Interventions to Reduce Alcohol Use Among HIV Patients:

## The Health & Motivation (H&M) Study

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# Overview

- Background and rationale for the study
- Health plan setting and clinical population
- Design
- Enrollment
- Baseline sample
- Next steps

# Background

- HIV patients have high prevalence of Alcohol Use Disorders (AUD) and hazardous drinking
- Hazardous drinking is associated with worse antiretroviral therapy (ART) adherence and clinical outcomes, HIV transmission and greater mortality. However, reducing drinking and accessing treatment, e.g., AUD specialty care, improves outcomes  
DeLorenze, Satre, Weisner et al., 2010, 2011
- New approaches are needed to reduce alcohol use and link patients with specialty AUD care when needed, given low initiation rates  
-- Satre, DeLorenze, Weisner, 2013

# Kaiser Permanente Northern California

- 3.8 million patients
- 8,000 physicians
- 21 hospitals
- Fully electronic health record (EHR)



# KPNC Shared Medical Record: [www.kp.org](http://www.kp.org)

<p><b>&lt; My health manager</b></p> <p><b>● My medical record</b></p> <ul style="list-style-type: none"><li>● Allergies</li><li>● Health summary</li><li>● Immunizations</li><li>● Ongoing health conditions</li><li>● Past visit information</li><li>● Prescriptions</li><li>● Test results</li></ul>	<p><b>&lt; My health manager</b></p> <p><b>● My message center</b></p> <p><b>Create a message</b></p> <ul style="list-style-type: none"><li>● E-mail my doctor</li><li>● E-mail another department</li></ul> <p><b>Inbox</b></p> <ul style="list-style-type: none"><li>● From my doctor</li><li>● From another department</li></ul> <p><b>Sent messages</b></p> <ul style="list-style-type: none"><li>● To my doctor</li><li>● To another department</li></ul>
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# HIV Positive Members at KPNC

	KPNC	KP San Francisco
N	8,047	2,702
Mean age, years	51	51
Men, %	90	97
Race/ethnicity, %		
White	59	67
Black	17	10
Hispanic	16	15
Other	8	8
HIV Risk, %		
Men who have sex with men	75	88
Injection drug use	7	7
On antiretroviral therapy, %	93	94
Mean CD4, cells/ul	667	668
HIV RNA<75 copies/ml, %	91	93

# Study Aims

- Specific Aim 1: To determine the impact of two brief intervention approaches, Motivational Interviewing (MI) and Emailed Feedback (EF), in primary care on hazardous drinking and alcohol-related problems among HIV patients
- Specific Aim 2: To test the impact of MI and EF on HIV-related outcomes (HIV control and transmission risk behaviors)
- Specific Aim 3: To examine the implementation costs and cost-effectiveness of MI and EF interventions

# Treatment Conditions to be Tested

- Motivational Interviewing (MI)
  - 3 sessions, 1 in person and 2 by phone
  - 3 additional phone sessions offered at 6 months if still hazardous drinking (adaptive treatment)
- Emailed Feedback (EF)
  - Tailored message regarding alcohol use risks delivered via patient portal, interactive as needed
  - Additional message sent at 6 months if still hazardous drinking (adaptive treatment)
- Usual Care



# Study Design

- 600 HIV+ participants randomized to MI, EF or usual care
- Inclusion: Adult HIV+; care received in KP San Francisco; report  $\geq 1$  binge drinking episode in prior year (i.e.,  $\geq 4$  drinks for women or  $\geq 5$  for men in a day)
- Exclusion: Clinical recommendation from providers to not contact
- Stratified by AUD risk score (Vinson et al., 2007, *ACER*, 31, 1392-1398)
- Telephone research interviews at 6 and 12 months, with data linked to EHR and KP HIV Registry

# Alcohol Measures

- AUDIT
- Usual quantity and frequency of drinking
- Hazardous drinking (3/4 and 4/5) in prior year and prior 30 days
- AUD symptoms
- Alcohol-related problems (S-MAST and ASI)
- Importance and confidence of drinking reduction (10 point scales)
- Drinking and sexual behavior
- Mixing energy drinks and alcohol
- 12-step meeting attendance
- Usual care provider behavior, e.g., brief interventions

# Other measures

- Sexual risk behavior
- ART medication adherence (self report and refill adherence)
- HIV clinical outcomes (CD4, HIV RNA, VACS Index)
- Functional status, medical symptoms, anxiety, depression, social support, adverse childhood events, HIV stigma
- Health services utilization

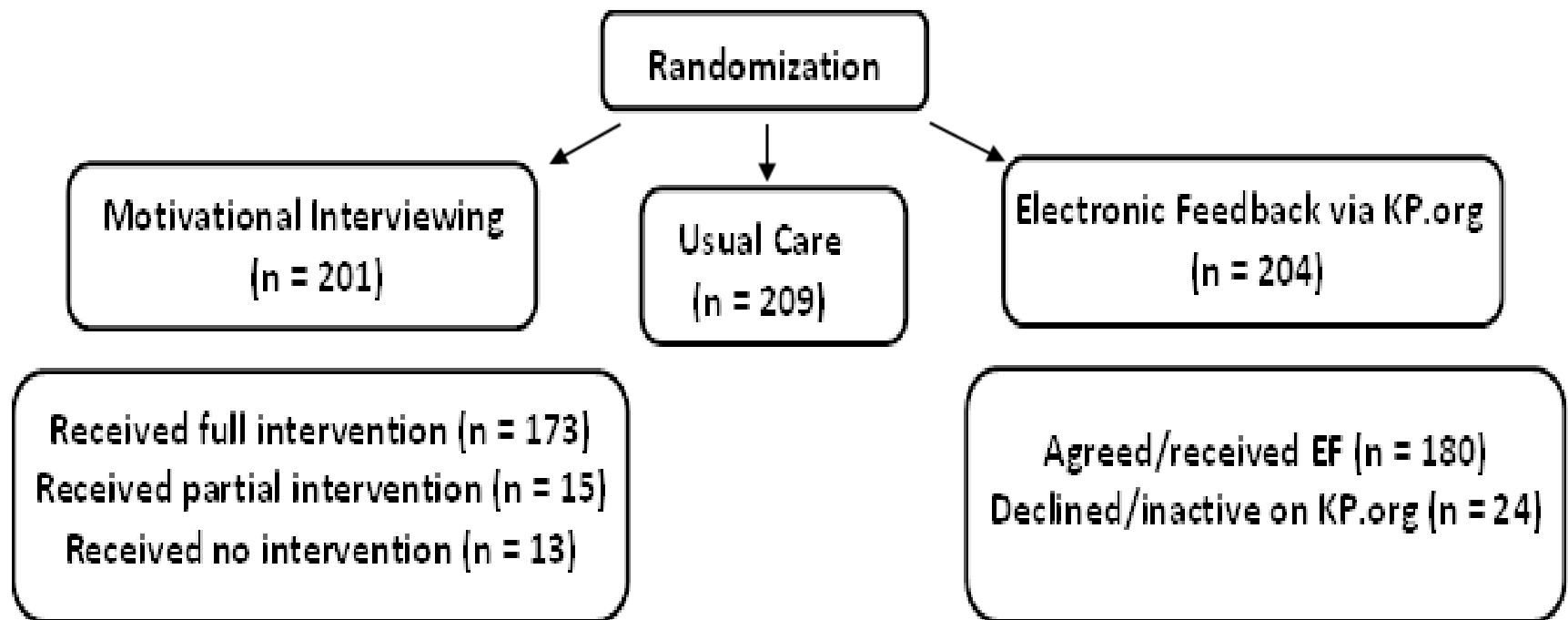
# Recruitment methods

- List of all HIV patients obtained from the HIV registry
- Permission to contact patients obtained from clinic providers
- Patients sent letter from their MD, with opt-out instructions
- All who did not opt out were contacted by phone, told about the study and screened for eligibility
- Eligible and interested patients made an in-person appointment for informed consent, baseline interview and randomization

# Recruitment: N=614 enrolled over 25 months, completed in June 2015

Patients contacted Screened	2,876 1,571 (55%)
Patients screened Eligible	1,571 775 (49%)
Patients enrolled and randomized, by arm	614 (79%)
MI	201 (33%)
EF	204 (33%)
Usual care	209 (34%)
Patients enrolled, by AUD risk	
High (Vinson score = 1 or 2)	349 (57%)
Low (Vinson score = 0)	265 (43%)

# Participant randomization and receipt of interventions (N=614)



# Demographic Characteristics

N	614
Mean age, years (range)	49 (21 – 74)
Men, %	97
Race/ethnicity, %	
White	74
African-American	11
Latino	20
Asian/Filipino	5
Native American/Alaskan	3
Pacific Islander/Native Hawaiian	1
Unknown	6

# Alcohol and drug use at baseline

Substances used in the past 30 days	n	%
Alcohol	576	94%
Marijuana	308	50%
Amphetamines	67	11%
Sedatives/Tranqs (not as Rx'd)	66	11%
Cocaine	57	9%
Rx Opioids (not as Rx'd)	37	6%
Ecstasy	26	4%
Heroin	4	1%
Hallucinogens	9	1%
Have you or someone else ever been injured as a result of your drinking?		
Yes, in the past year	28	5%
Yes, more than a year ago	100	16%
No	488	79%
Has a relative, friend or doctor or other health worker been concerned about your drinking or suggested you cut down?		
Yes, in the past year	95	15%
Yes, more than a year ago	108	18%
No	413	67%



# Follow-up interviews in progress

<b>6-month interview</b>	<b>n=531 due</b>
Refused	3
Deceased	2
Other (e.g., jail, hospital)	1
Unable to locate	12
Completed	<b>513 (97%)</b>
<b>12-month interview</b>	<b>n=348 due</b>
Refused	1
Deceased	1
Other (e.g., jail, hospital)	0
Unable to locate	6
Completed	<b>340 (98%)</b>

# Next steps

- Baseline data analysis begun
- Ongoing intervention delivery (adaptive treatment)
- Ongoing follow up data collection
- PrEP pilot study, to examine adherence, including the impact of alcohol use (Erik Storholm, PhD, post doctoral fellow)

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## KPNC Members

### KPNC Primary Care

KPNC Chemical Dependency Quality Improvement Committee

KPNC Regional HIV Advisory Committee

KPNC Adolescent Medicine Specialists Committee

KPNC Adolescent Chemical Dependency Coordinating Committee

KPNC Oakland Pediatrics Department

KPNC Regional Mental Health and Chemical Dependency