

## Universal screening for drug use in urban primary care

The ASPIRE Study  
Assessing Screening Plus Brief Intervention's Resulting Efficacy to stop drug use

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**Acknowledgements:** The project described was supported by Award Number R01DA025068 from the National Institute on Drug Abuse and, in part, by SAMHSA and the National Center for Research Resources (UL1RR025771). The content is solely the responsibility of the authors and does not represent the official views of the National Institutes of Health.





# Background

- Screening and Brief Intervention (SBI) for unhealthy alcohol use is effective at reducing unhealthy drinking among primary care patients
- However, evidence of SBI for drug use is limited and inconclusive
- One premise underlying SBI for drug use is that screening will identify risky use of a range of substances prior to the development of dependence
- Because drug use is heterogeneous, SBI for drug use may be more complex
  - Multiple substances will be encountered (sometimes in the same patient)
  - Screening may identify a range of severity/risk



# Objective

- To characterize the range and severity/risk of drug use identified by screening in primary care



# Methods



# Cross-sectional descriptive

- Analysis of data collected during...
  - Randomized controlled trial comparing 2 models of brief intervention among primary care patients with drug use who are identified by screening

# Methods

- Adults, large, urban primary care practice
  - Patients screened using Question 2 of the ASSIST (frequency of past 3 month drug use):
    - “In the past three months, how often have you used... narcotic pain medications\*, sedatives\*, amphetamines\*, marijuana, cocaine, heroin, hallucinogens, inhalants?”

*\*without rx or in amounts greater than prescribed*

- Offered participation in trial
  - Enrolled subjects completed additional research assessments before randomization

# Measures of Risk/Severity

- **Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) version 3.0**

- Substance Specific Involvement Score ("ASSIST score") for "drug of most concern:"

**0-3 = Low risk / 4-26 = Moderate risk / 27+ = High risk**

Score of 2 = used drug once or twice in past **3 months**

Score of 3 = used drug monthly during past **3 months**

Score of  $\geq 4$  = used drug weekly during past **3 months** OR used drug less frequently and had at least one consequence of drug use

- **Composite International Diagnostic Interview-Short Form (CIDI-SF)**

- Drug dependence diagnosis (any, not specific drugs)
- 1-year time period

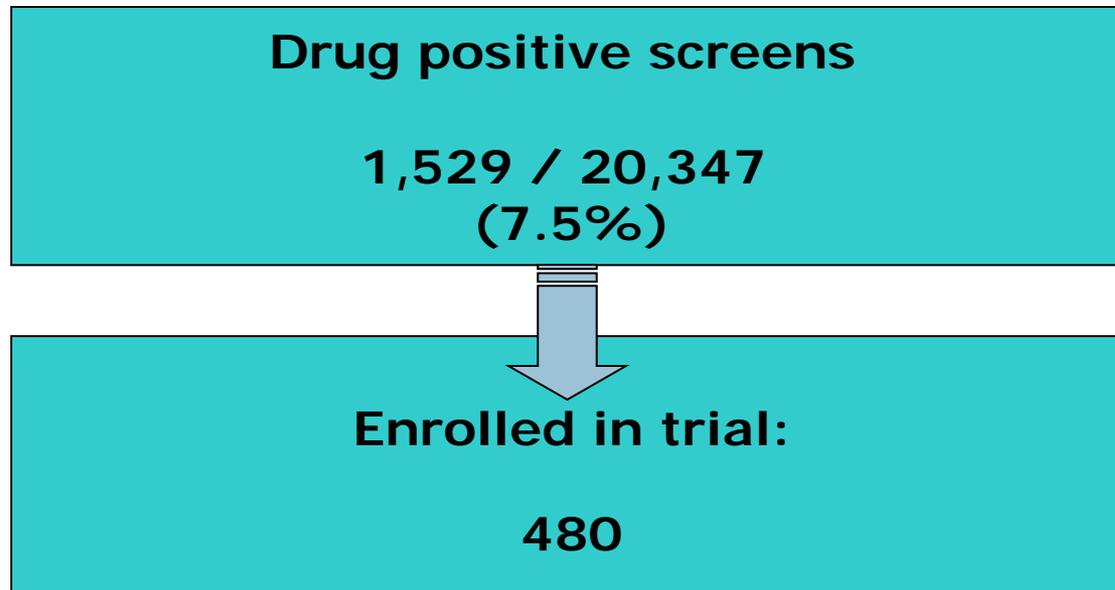
# Eligibility

- **Adults** (18 years or older)
- Arrived for a **visit with primary care** clinician
- Used drugs once or twice in the past 3 months (score  $\geq 2$ )
  - 2 contact persons (to help follow-up efforts)
  - Willing/able to return for research interviews
  - Not pregnant
  - Able to interview and consent in English



# Results

# Screening and Enrollment



Note: Because of logistical issues, not all drug positive screens are offered enrollment in the trial. Detailed assessments available for n=480.

# Results: Subject Characteristics

	ASSIST 2-3 (n=48)	ASSIST 4+ (n=432)
	%	%
Age (mean $\pm$ SD)	42.3 $\pm$ 12.4	41.3 $\pm$ 12.1
Gender, male	56	71
<i>Race/ethnicity</i>		
Black or African American	77	65
White	15	20
Hispanic or Latino	8	11
Homeless (1+ night street/shelter, past 3 months)	15	17
<i>Alcohol use</i>		
Any heavy drinking episodes, past month (Women 4+ drinks/day; Men 5+ drinks/day)	52	49
CAGE alcohol score $\geq$ 2	33	44
Short Inventory of Problems (SIP) (mean $\pm$ SD)	3.1 $\pm$ 7.1	6.8 $\pm$ 10.9
<i>Drug use consequences</i>		
CAGE drug score $\geq$ 2	40	71
Short Inventory of Problems-Drug (SIP-D) (mean $\pm$ SD)	4.2 $\pm$ 7.2	13.0 $\pm$ 13.9

	%
<b>Drug of most concern:</b>	
Marijuana.....	62
Cocaine.....	19
Opioids.....	17
Heroin and Rx drugs...	31
Heroin only.....	34
Rx drugs only.....	35
Sedatives.....	2
Rx drug (illicit)	21
≥1 drug	32
<b>Risk/Severity</b>	
ASSIST 2-3 (“low”).....	10
ASSIST 4-26 (“mod”).....	72
ASSIST ≥27 (“high”).....	18
Dependence (CIDI SF).....	45

The Rx drug was not necessarily the drug of most concern

# Drug Dependence by ASSIST Score

ASSIST Score (n=480)	CIDI-SF Drug Dependence* (n=217; 45%)	CIDI-SF Modified Drug Dependence Definition** (n=204; 42%)
Score (n)	%	%
2-3 (n=48)	13	13
4-26 (n=347)	38	35
≥27 (n=85)	93	91

\*CIDI-SF Drug Dependence = endorsement of 3 or more criteria.

\*\* Modified definition excludes a CIDI-SF item (an abuse criterion):

“During the past 12 months, were you ever under the influence of any of these substances in a situation where you could get hurt-like when driving a car or boat, using guns, knives, machinery or anything else?”

# Severity of Use of Drug of Most Concern

	<b>ASSIST 2-3 "Low" (n=48)</b>	<b>ASSIST 4-26 "Mod" (n=347)</b>	<b>ASSIST ≥27 "High" (n=85)</b>	<b>CIDI Drug Dependence (n=217)</b>
Drug of Most Concern	%	%	%	%
Opioids	5	52	43	78
Cocaine	8	62	30	70
Marijuana	12	82	6	29
Sedatives	22	56	22	44
Illicit use of Rx drug <sup>*, #</sup>	6	58	36	69
Use of > 1 drug	9	60	31	69

\* Illicit use: Use without a prescription or in greater amounts than prescribed

# Rx drugs include benzodiazepines (e.g., clonazepam, alprazolam), prescription stimulants (e.g., methylphenidate), and prescription opioids (e.g., oxycodone, hydrocodone, methadone, morphine, fentanyl)

# Severity of opioid use among those with opioid as drug of most concern

	<b>ASSIST 2-3 "Low" (n=4)</b>	<b>ASSIST 4-26 "Mod" (n=43)</b>	<b>ASSIST ≥27 "High" (n=36)</b>	<b>CIDI Drug Dependence (n=65)</b>
	%	%	%	%
Heroin + Rx opioids	0	38	62	96
Heroin only	0	43	57	86
Rx opioids only	14	72	14	55

RX opioids = Use without a prescription or in greater amounts than prescribed



# Limitations

- Description limited to those enrolled in trial
  - Still, included a range of risk, and comparisons within the sample not affected
- Assessments were not diagnostic interviews, and may not be comparable to each other
  - But these are validated in comparison with reference standards

# Conclusions

- Marijuana was the most common drug (of most concern) identified by screening in primary care
- Many with cocaine and opioids (including prescription) as drug of most concern had high severity and dependence; few with marijuana use had high severity, but dependence was not rare
- Almost half who used drugs had drug dependence
  - though only 18% had “high risk” ASSIST scores

# Discussion

- Although efficacy of brief intervention is as yet unknown, when clinicians implement drug screening in primary care settings with the idea that they will prevent more severe consequences, they may instead find that many patients identified have dependence, a group not generally thought to respond to brief intervention alone
- Brief tools that might be used to assess severity in these settings (e.g., ASSIST, CIDI-SF) yield disparate results
- In primary care, opioid, cocaine and prescription drug abuse occur much less frequently than marijuana use, offering fewer opportunities to affect use of those drugs
- Drug SBI efforts in primary care will mainly affect marijuana, a fact that needs to be considered when determining the value of the service



Questions?



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# Randomization + Intervention

