



# **Using Survey Data and Biomarkers as Part of An Evaluation of Drug Treatment in Afghanistan: Methodological Considerations and the Importance of Context in Respondent Tracking**

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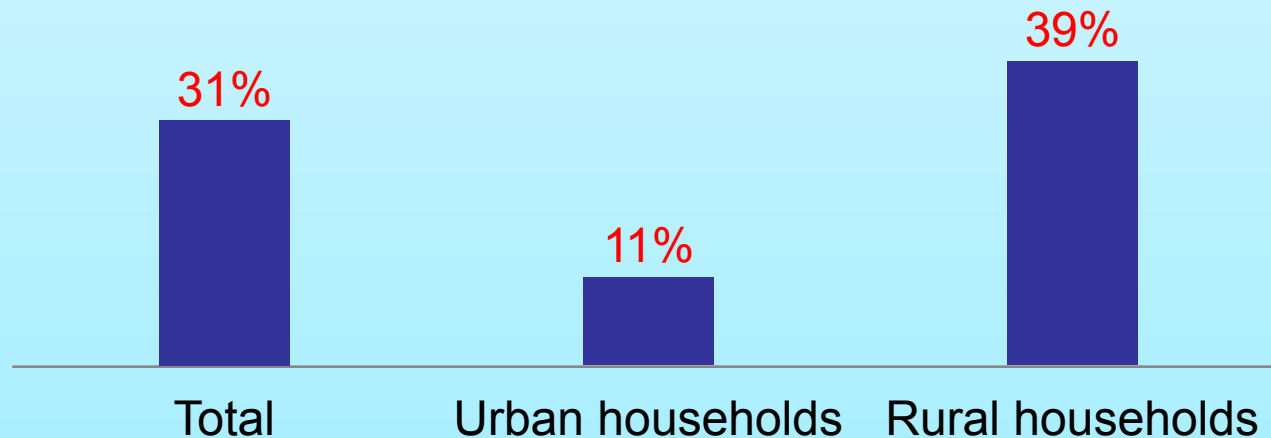


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# Afghan Drug Abuse: A Significant Health Threat

- 1.3-1.6 million opiate users (ANDUS 2015).
- Rate of drug use among Afghan adults is twice the adult global average rate of drug use.

% of households with at least 1 drug dependent resident



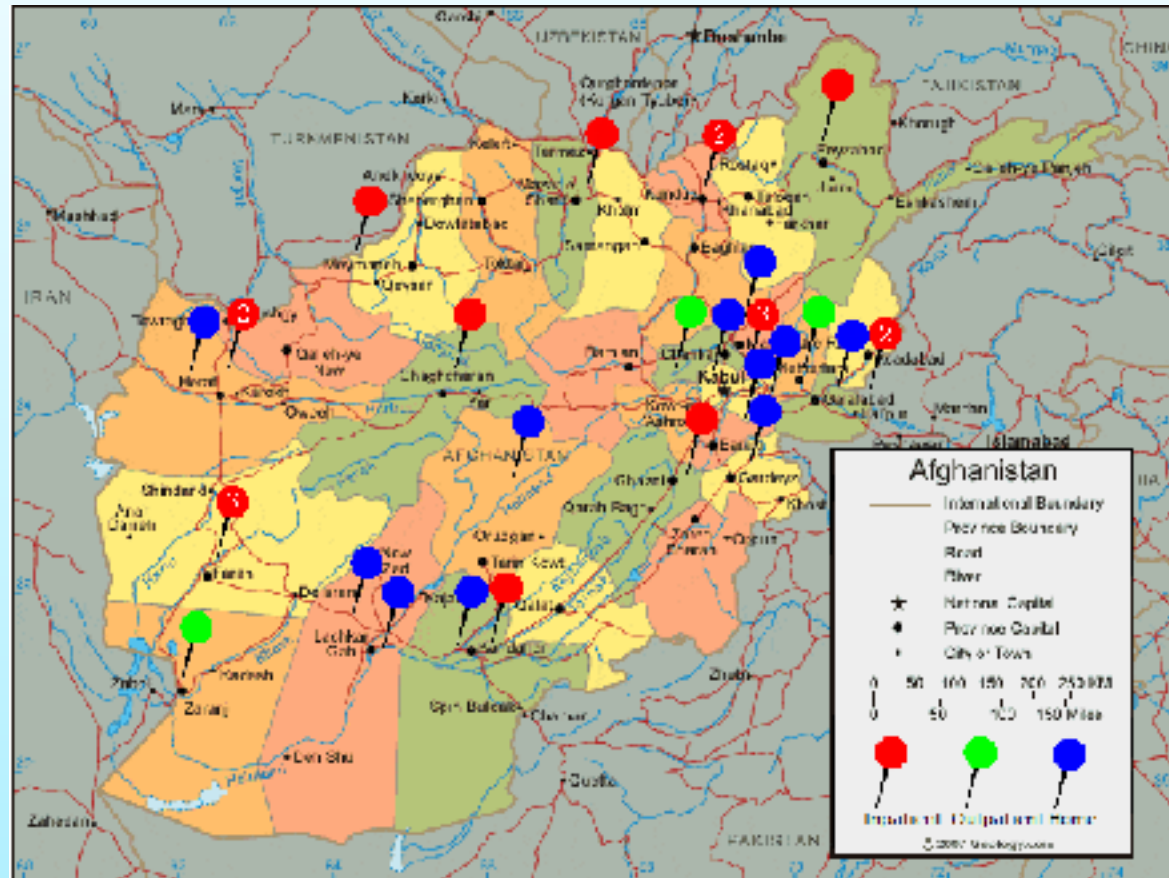
# Combating the Threat

- U.S. support for Afghan drug treatment (DAT) centers.
- Modality-specific phased treatment maps
- UTC
  - Pre-treatment engagement
  - Primary Tx: 45-90 days
  - Aftercare/secondary Tx: Up to 365 days



# 2015 Evaluation

- Probability sample of 32 DAT centers in 18 Afghan provinces
- Foci: overall effectiveness; gender differences in outcomes; Tx modality; DAT Center operator.



# Research Questions

1. What was the overall study retention rate between the baseline and follow-up interviews? Did study retention rates vary across the participating DAT centers?
2. What strategies were used to track patients and locate them for the follow-up interview and how were those strategies implemented during fieldwork?
3. Do our results suggest that our follow-up interview data were negatively impacted by non-response error?
4. What were the levels of the agreement between patient self-reports of drug use and drug testing data?

# Study Retention

- **Patient Data**

- Interviews

- 1,024 pre-test interviews completed within 0-5 days of completing detox.
    - 867 post-test interviews completed 12 months later (after completion of inpatient and first year of outpatient phases).
    - 84% study retention rate.

- Urine tests

- 1,024 urine tests completed immediately after baseline and 867 completed immediately after post-test interviews.
    - Urine tests completed with 100% of baseline & post-test samples.

Exceeds many U.S. treatment evaluations

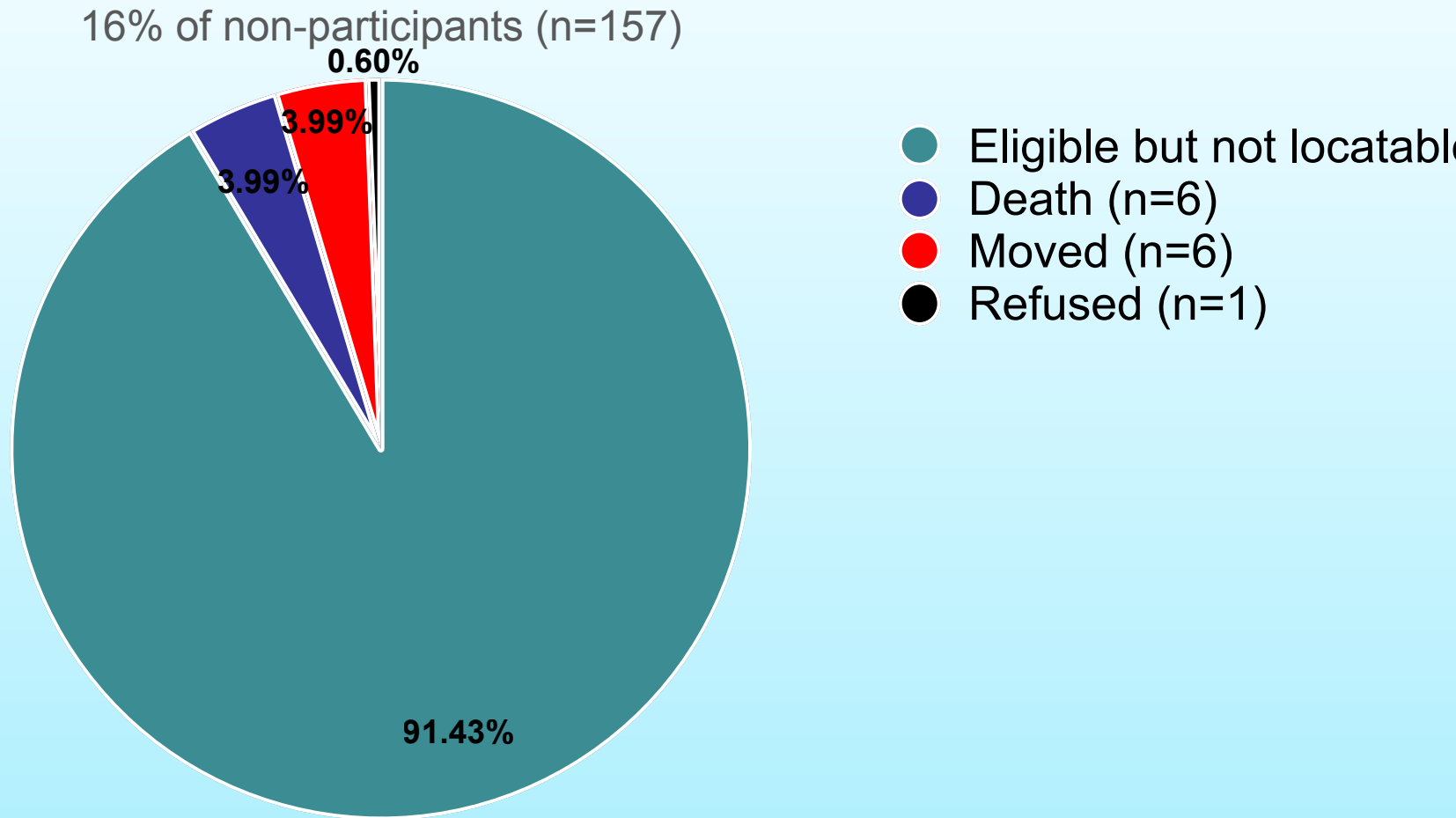


# Variations across Centers

- 22 centers had retention rates equal to or greater than 80%.
- 8 centers had retention rates of between 50% and 79%.
- 4 centers had retention rates under 50%
- Maximum study retention rate: 100%
- Minimum study retention rate: 0% (1 DAT Center)



# Sample Dispositions



*Moved = moved to another Afghan province, to Iran, or to Pakistan*

# Fieldwork Challenges

- Security
  - Taliban invasions/military exercises
  - General security issues
- Staff & Sponsor Changes
  - Temporary blocks to patient & center access.
  - Center shutdowns during sponsor transitions.
- Center Operations
  - Staff not staying in contact with patients or implementing treatment activities with fidelity
- Government monitoring
  - Impacted patient perceptions of confidentiality

**How Did We Get To 84%?**

# #1: Fieldwork Procedures

- Experienced in-country field partner (D3 Systems/ACSOR Surveys).
  - Dedicated provincial field teams
  - Gender-matched interviewers.
  - Previous treatment evaluation work.
- Careful fieldwork monitoring.
  - Multiple sources of monitoring
  - Weekly PIRE/D3 Systems Case Review
- Partnership with DAT Centers
- Interviewer/patient personal connections

# #2: Project Partnerships



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**Ministry of  
Counter Narcotics**

Islamic Republic of Afghanistan

# #3: Patient Tracking Procedures

- Collection of tracking information at end of baseline interview.
- Provision of cellular phone and/or airtime cards.
- Monthly (or more frequent) patient contacts from field team.
- Incentives:
  - \$5 after baseline
  - \$25 after follow-up interview
  - Approved by PIRE and Afghan MoPH IRBs.

# Tracking Information

- Tracking elements collected and updated:

- |   |   |
|---|---|
| <ul style="list-style-type: none"><li>• Full name (<i>patrilineal and maternal surname</i>), pseudonyms, aliases, nicknames, etc.)</li><li>• Gender,</li><li>• date of birth, and</li><li>• DUI number (<i>unique identification card #</i>)</li><li>• Home address and reference points</li><li>• Telephone and cell phone numbers</li><li>• E-mail address (if available)</li><li>• Work history</li><li>• Workplace addresses and numbers</li><li>• Shelters (<i>names, addresses and phone numbers</i>)</li><li>• Seasonal mobility</li></ul> | <ul style="list-style-type: none"><li>• Recent activity (<i>where the patient stayed the night before entering the DAT center</i>)</li><li>• Church or religious affiliations and frequency of attendance</li><li>• Future plans after leaving the treatment center</li><li>• Contact information for at least seven family members, relatives, friends and/or others</li></ul> |
|---|---|

# Tracking Strategies, cont.



Calls to study-provided Cell phones



Calls to personal numbers



Home visits



Calls and visits to other contacts



Current/former workplace visits



Trips to hang outs



Visits to community organizations



Community leaders and Imams



DAT center staff



Other Centers/Other Provinces



**Was 84% Enough?**

# Predictors of Study Attrition

- Attrition/retention status was regressed on the following predictors (using a probit regression model):
  - Gender
  - Age
  - Marital status
  - Ethnicity (Hazara/Pashtun)
  - Living with spouse and children
  - Number of children
  - Employment status
  - Past 30 day income
- Patients of Hazara ethnicity were more likely to drop out of the study,  $\chi^2(1)=16.16$ ,  $p<.001$

# Implications for Nonresponse Error

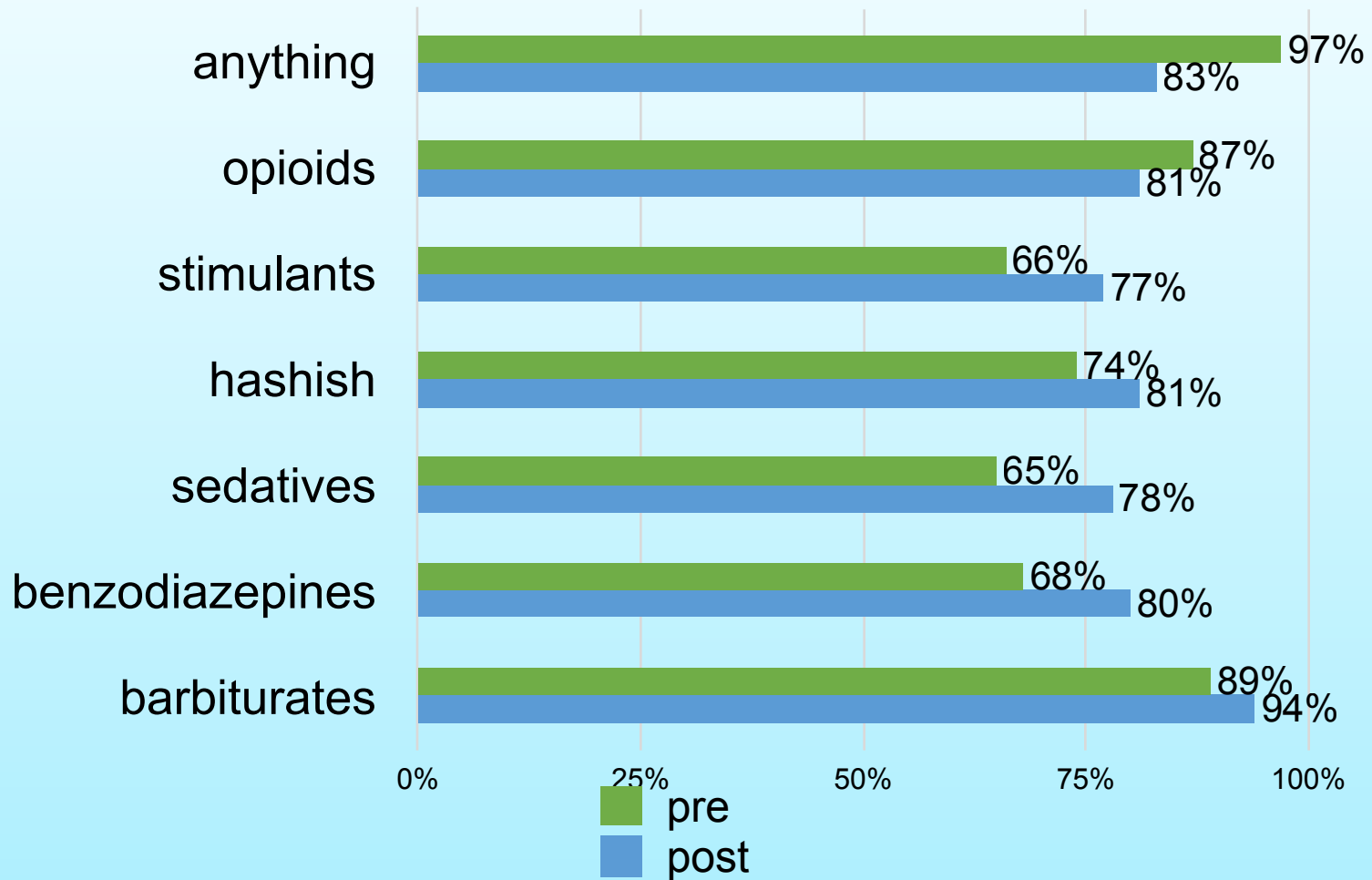
- Patient attrition was not randomly distributed.
- Previous studies: variables that significantly predicted study attrition also are associated with treatment success.
  - Next step: assess nonresponse error in substantive variables.
- Given the research context and serious methodological challenges, not easy to further enhance retention rates.

# Lessons Learned/Recommendations

1. Importance of matching research design and fieldwork procedures to research context
2. Budgeting adequate time for field staff was key to our success
3. Relationships were key to success
4. Retention rates hinged on accuracy of tracking information
5. Incentives
6. Recommendation: consider collecting pictures.

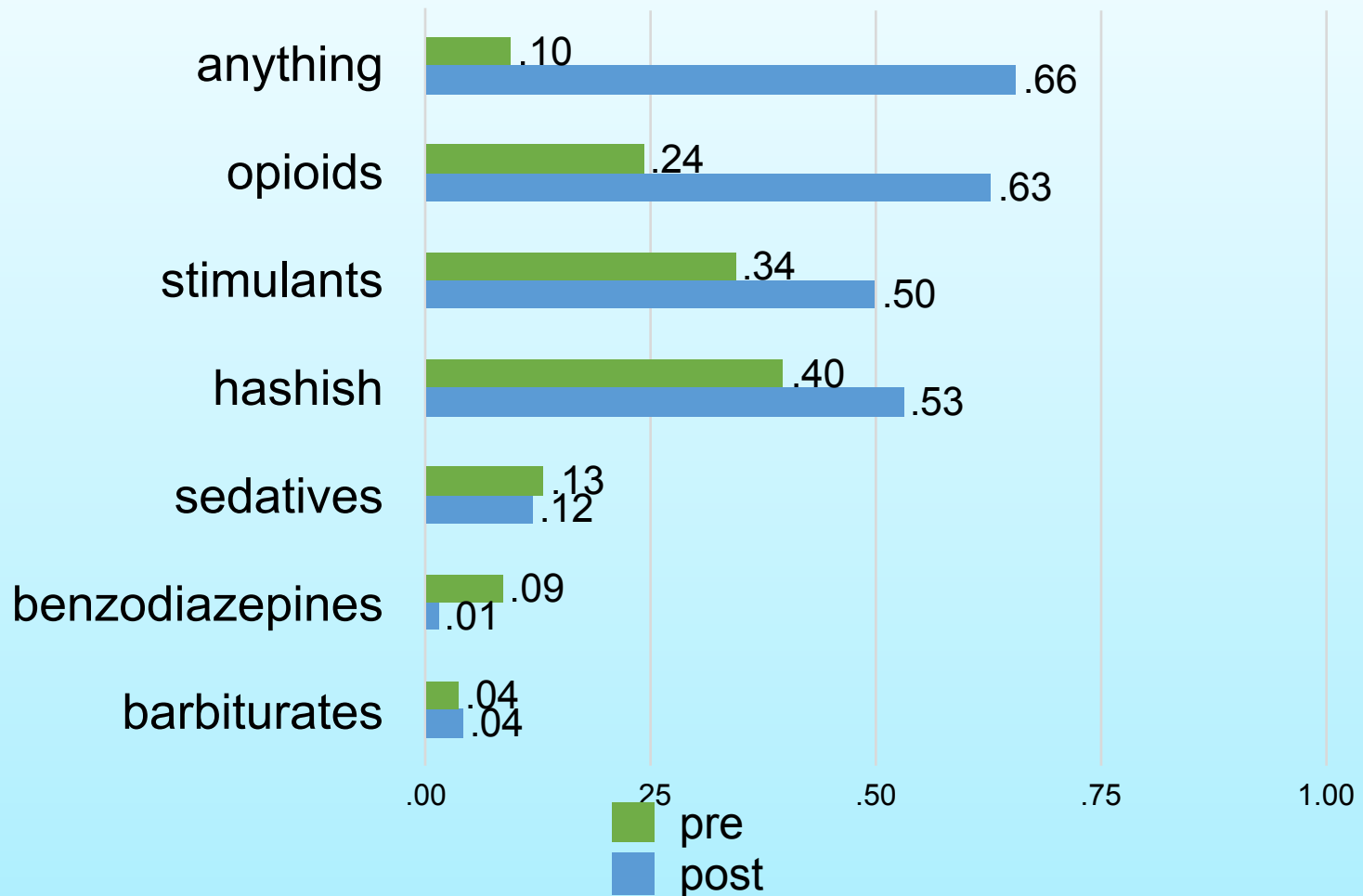
# **Beyond Nonresponse Error**

# Agreement Between Drug Testing & Past 30 Day Self-Reports



- Overall, high agreement between testing and self-report

# Agreement Between Drug Testing & Past 30 Day Self-Reports (Cohen's $\kappa$ )



- Overall, higher level of agreement at follow-up, where there was likely less socially desirable responding.

# QUESTIONS AND COMMENTS?



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