

# ***Reliability Analysis of the Domestic Violence Risk and Needs Assessment***

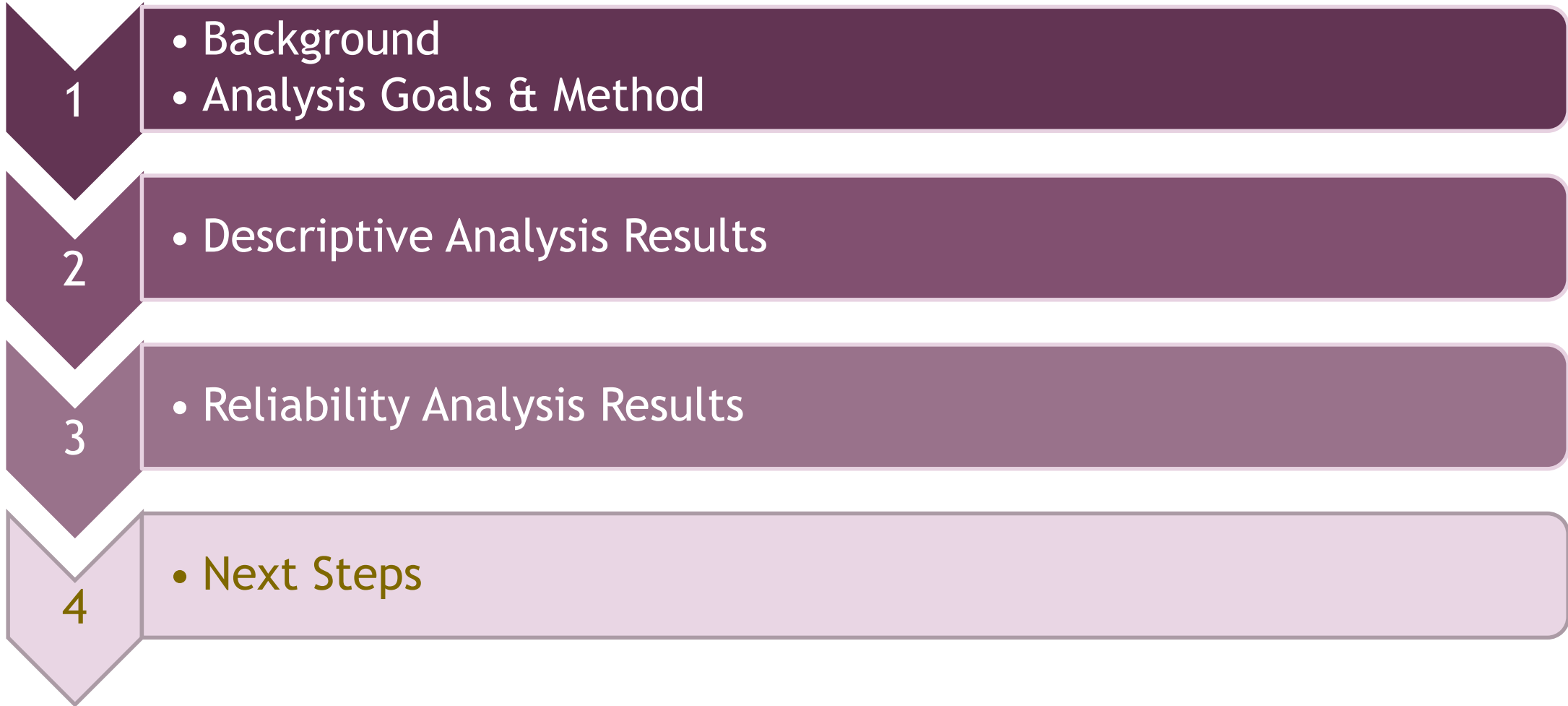
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Office of Research and Statistics, Division of Criminal Justice

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# *Overview of presentation*



# *DVRNA Overview*

- Administered to individuals who were arrested for a domestic violence offense to assign treatment tracks based on probability of recommitting a domestic violence offense; assesses both static and dynamic risk factors
- Assessment includes 48 items in 14 specific domains
- Scoring is unweighted
- Automatic placement questions assign individuals to a more intensive treatment track

# 14 Domains

Prior DV-Related Incidents\*

Drug/Alcohol Use\*

Mental Health\*

Suicidal/homicidal\*

Use and/or threatened use of weapons\*

Non-DV Criminal History\*

Obsession with the victim

Safety Concerns\*

Violence and/or threats toward family members

Attitudes that support/condone DV abuse

Prior treatment for DV

Victim separation within 6 months

Unemployment

Involvement with people who have pro-criminal influence

\* : Indicates that the domain contains an override question

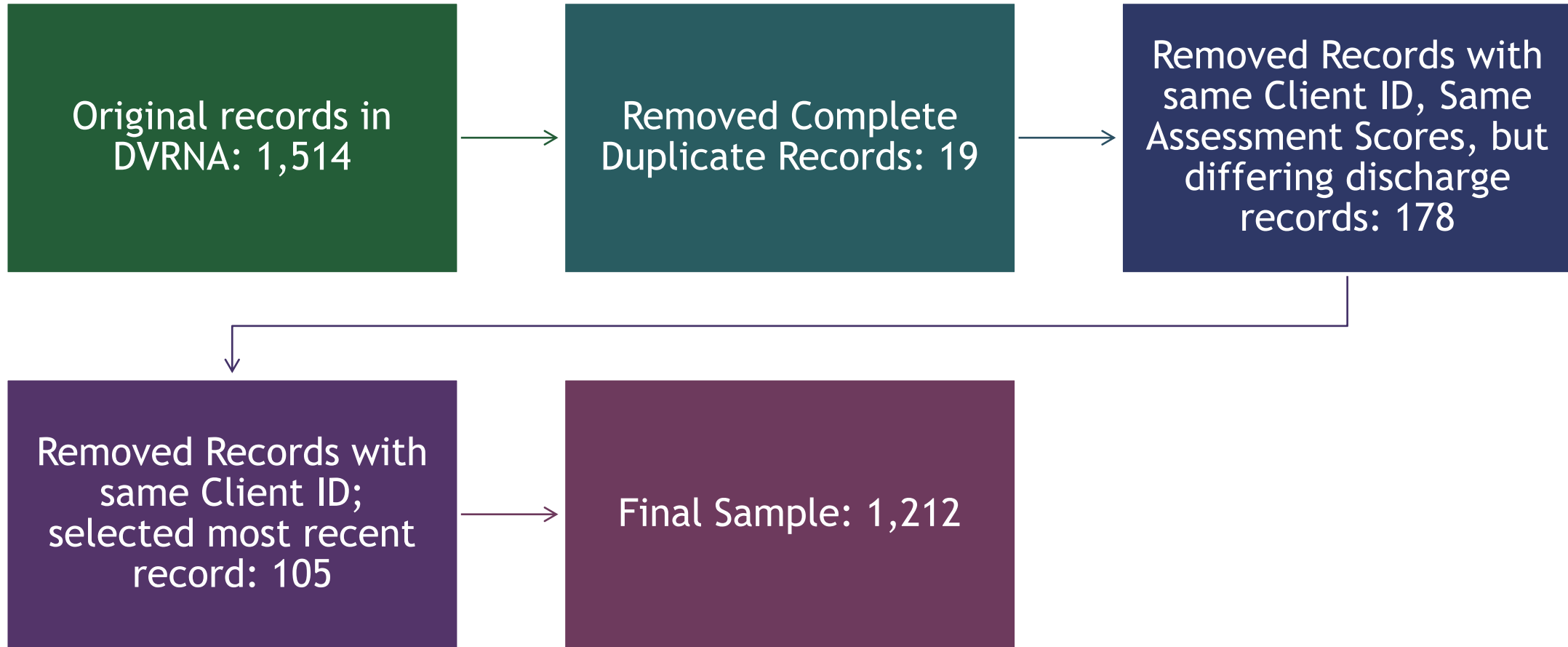
# Methods

- Data cleaning & removal of duplicate records
- Descriptive analysis
- Reliability analysis: Cronbach's alpha calculations for survey & by domain for domains with 3 or more items
- Holding off on recidivism analysis due to domestic violence reporting barriers and other constraints during 2020

# Analysis Questions

Analysis Type	Questions
Descriptive	<ul style="list-style-type: none"><li>• What are the demographic characteristics of individuals who are assessed?</li><li>• How many individuals have a signed release of information (ROI?)</li><li>• What is the distribution of scores and instrument-recommended treatment tracks?</li><li>• How do scores differ by gender and age?</li><li>• What is the distribution of assigned treatment tracks?</li><li>• How many individuals are placed into a treatment track because of a response to an override question?</li></ul>
Reliability Analysis	<ul style="list-style-type: none"><li>• How reliable is the DVRNA instrument?</li><li>• How reliable are the domains of the DVRNA?</li><li>• What potential changes could be made to improve reliability</li></ul>

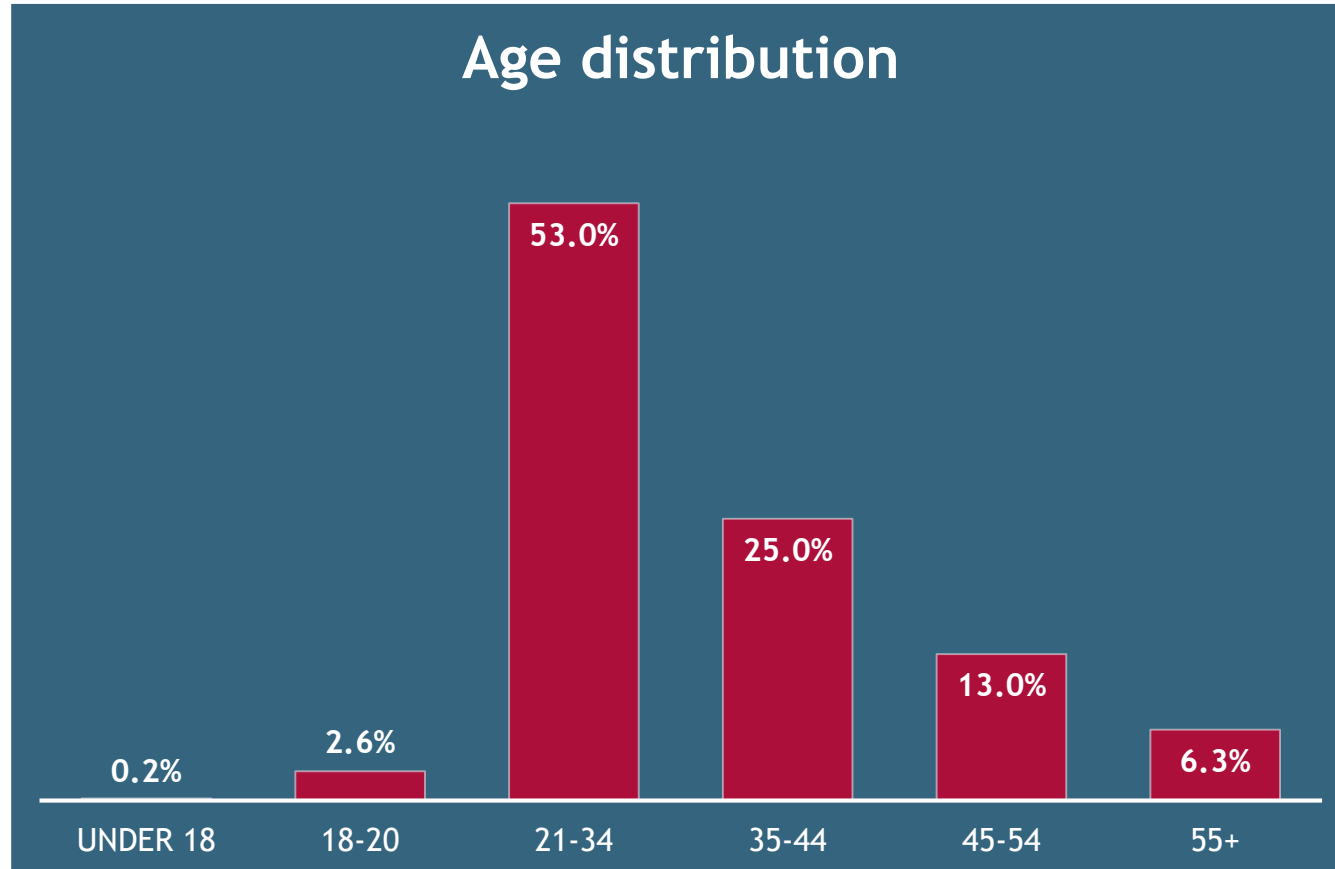
# *Sample: Individuals assessed using the DVRNA from April 2017 to December 2020*



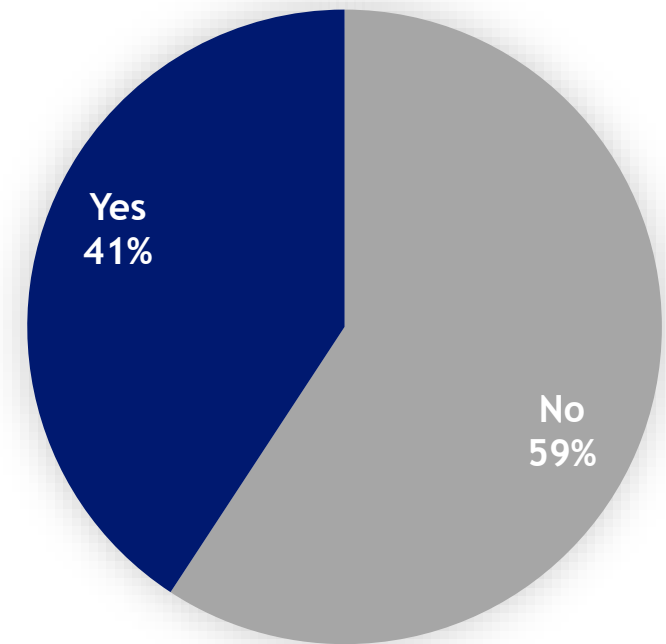
# *Descriptive Analysis*



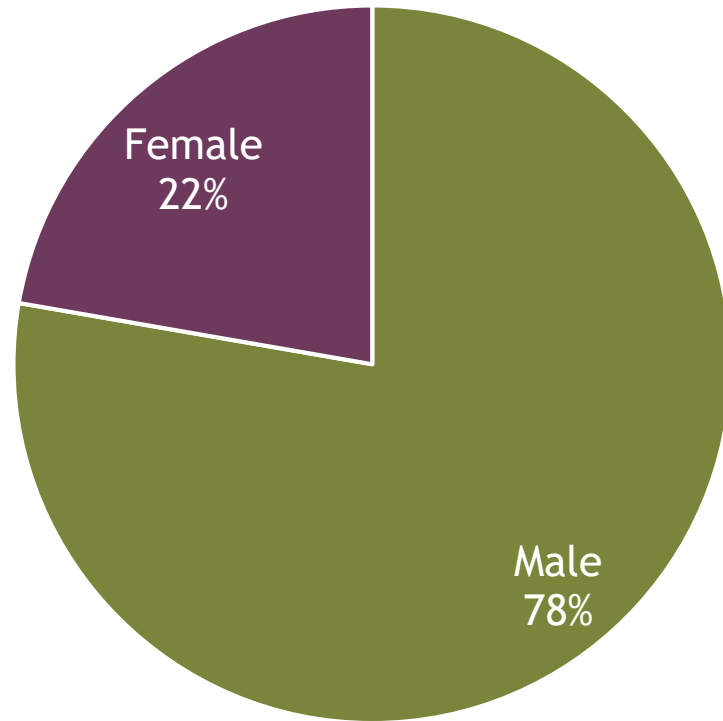
# *Descriptive Analysis; all individuals (n = 1,212)*



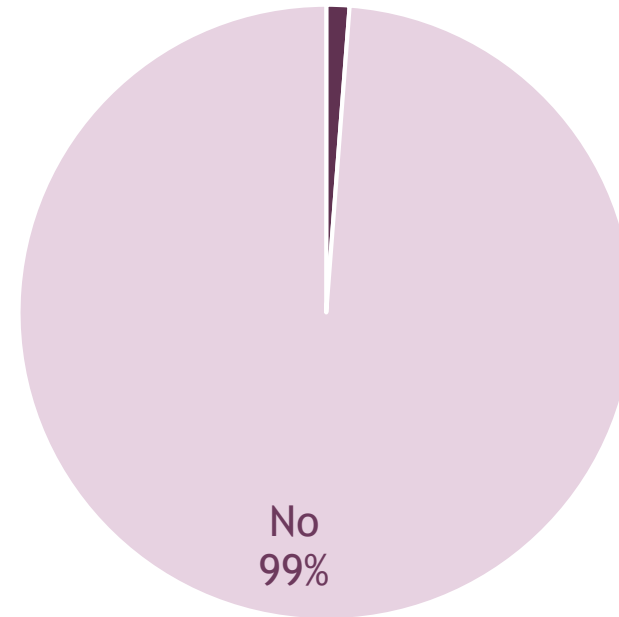
### Signed Release of Information



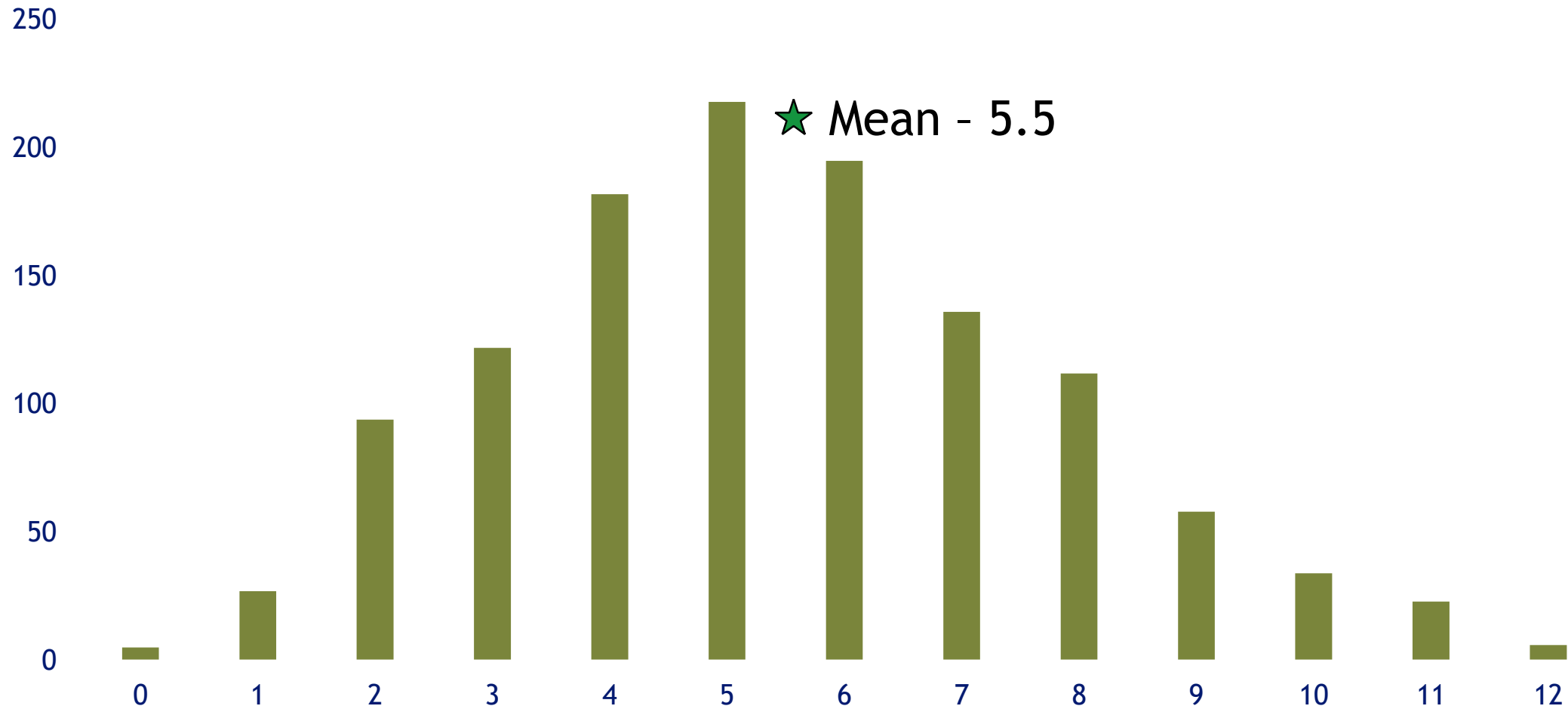
## *Descriptive Analysis: individuals with a signed ROI (n = 419)*



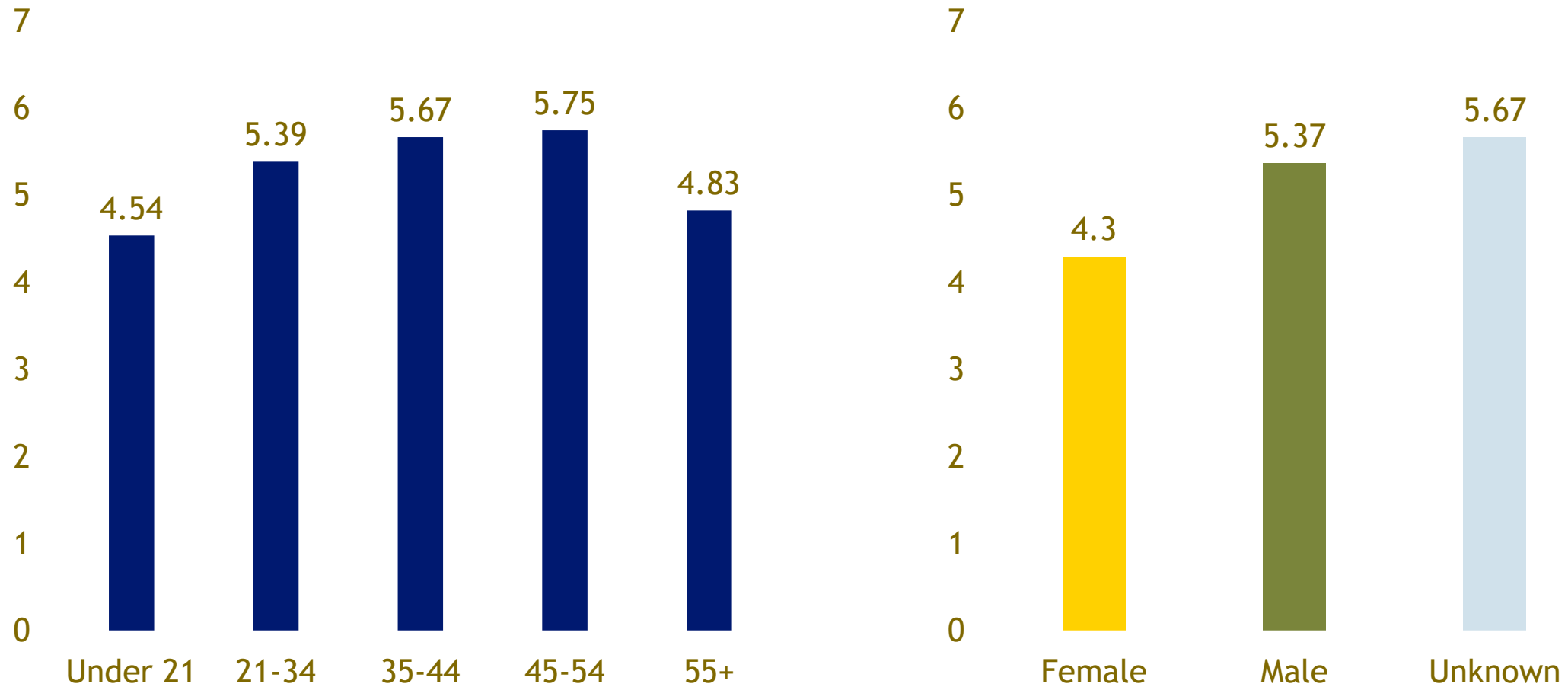
Identifies as LGBTQ



# *Total Score Distribution, (n = 1,212)*

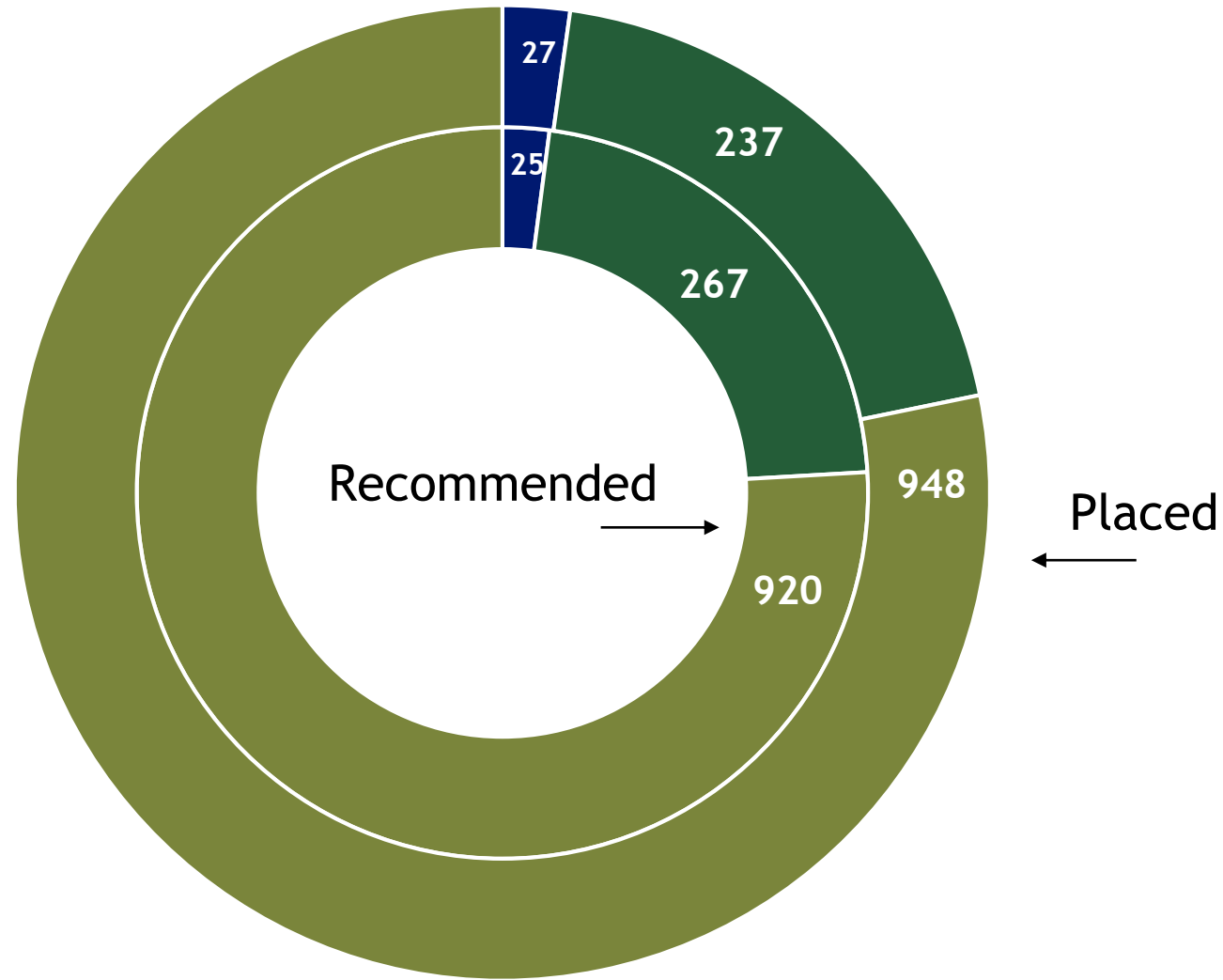


## *Mean score by age (n = 1,212) & gender (n = 494)*

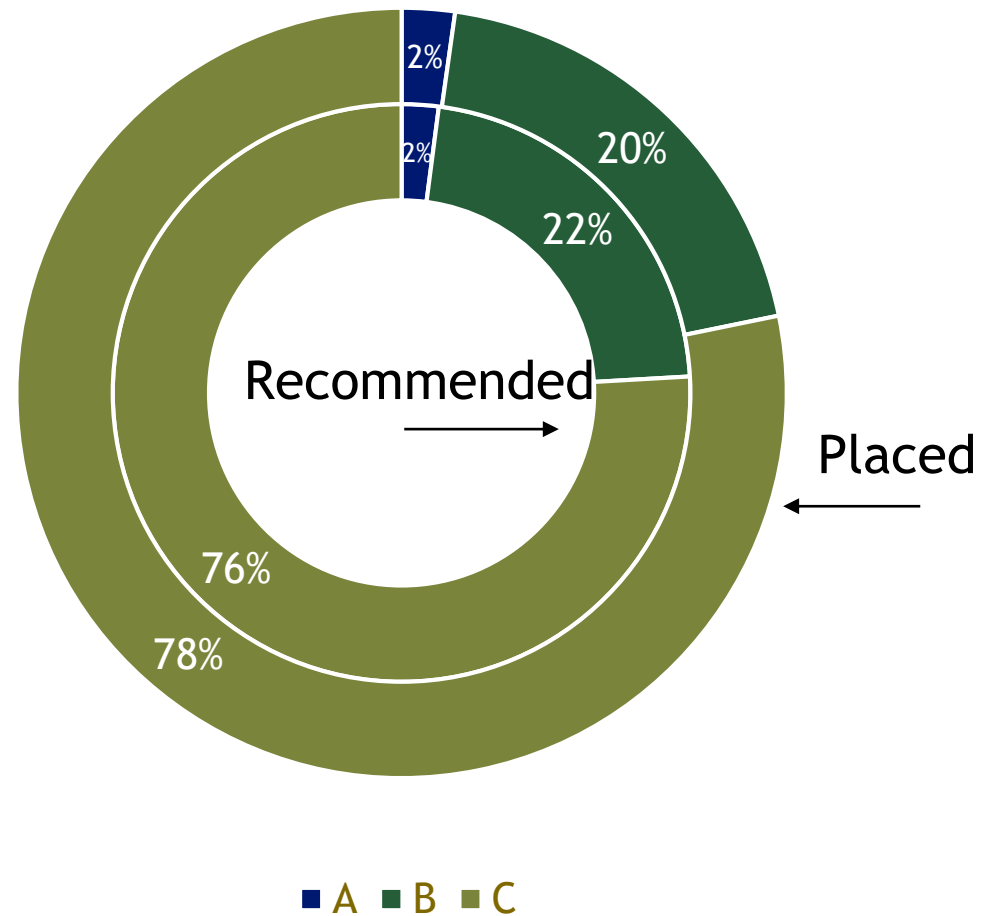


# *Recommended vs. Placed Treatment Levels via Provider Overrides, (n = 1,212)*

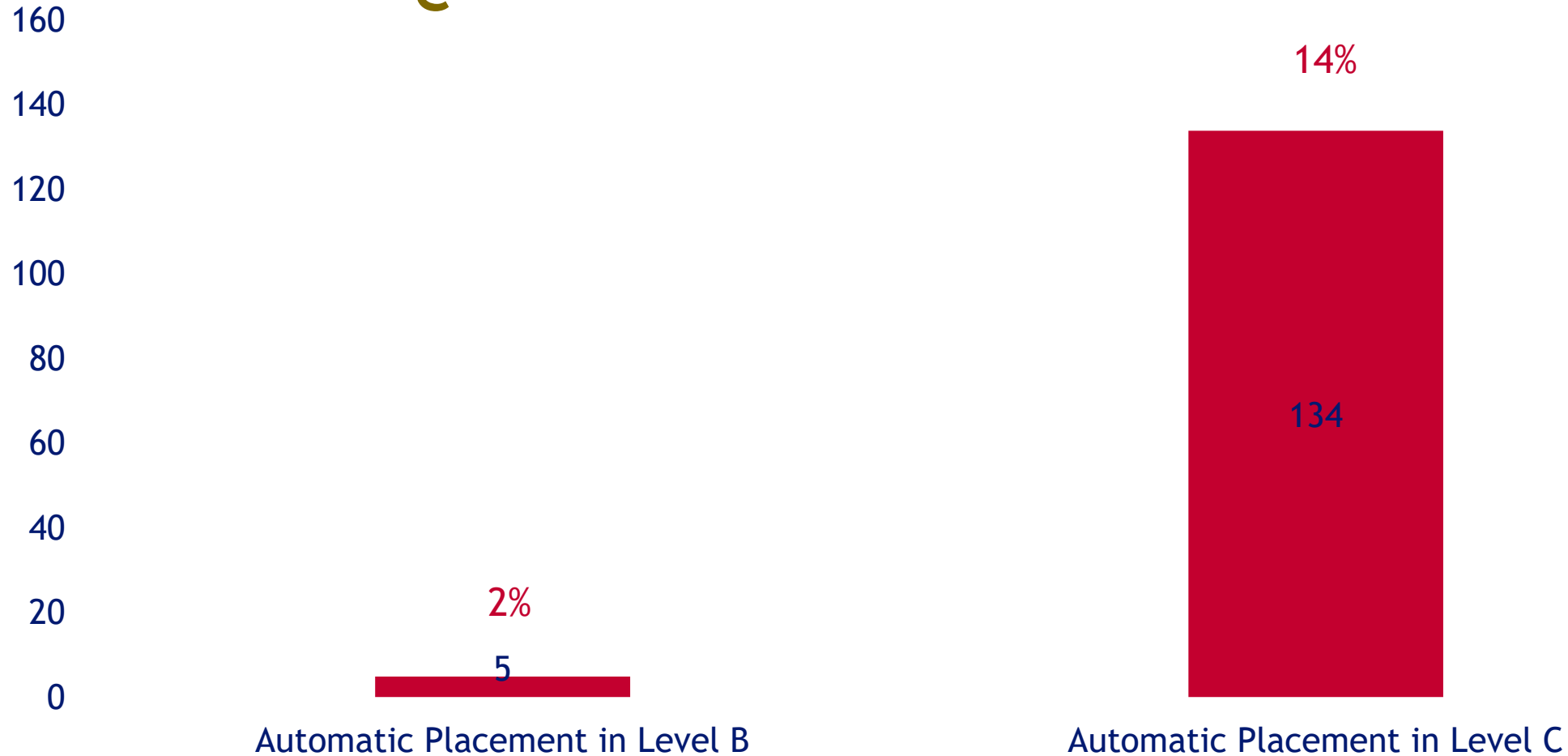
- A
- B
- C



# *Recommended vs. Placed Treatment Levels via Provider Overrides, (n = 1,212)*



# *Treatment Track Placement Based on Automatic Placement Questions*



# *Treatment Track Placement Based on Automatic Placement Questions*





## *Most Common Risk Factors Used in Automatic Placement for Track C*

Domain	Item	Individuals who Met Criteria
A	Prior Domestic Violence conviction	37
D	Serious homicidal or suicidal ideation/intent within the past year	12
E	Gun in the home in violation of a civil or criminal court order	2
E	Use and/or threatened use of weapons in current or past offense	70
F	Offender was on community supervision at the time of the offense	36

## *Most Common Risk Factors Used in Automatic Placement for Track B*

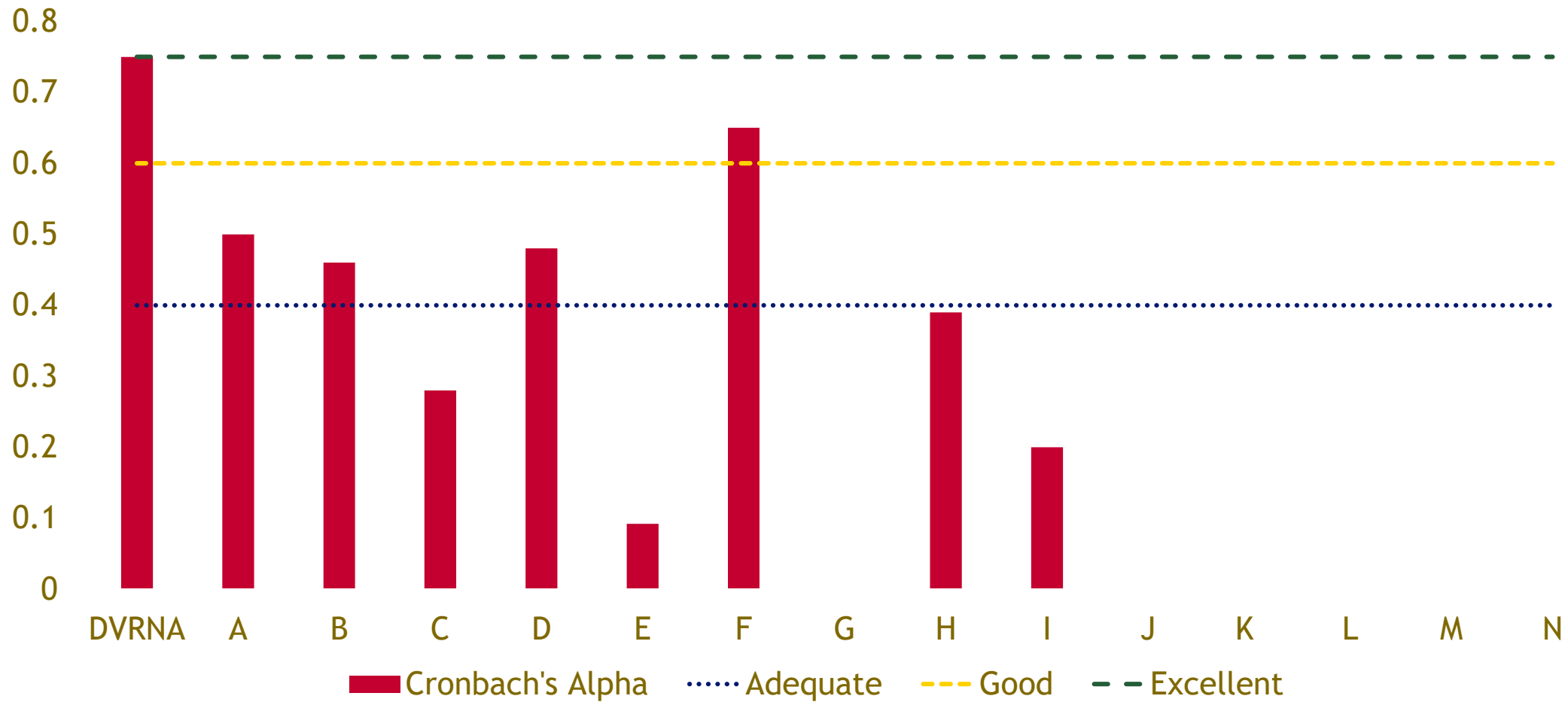
Domain	Item	Individuals who Met Criteria
A	Violation of an order of protection (documented violation)	1
B	Substance abuse/dependence within the past 12 months	2
C	Existing Axis I or II diagnosis (excluding V codes)	2

# *Reliability Analysis*

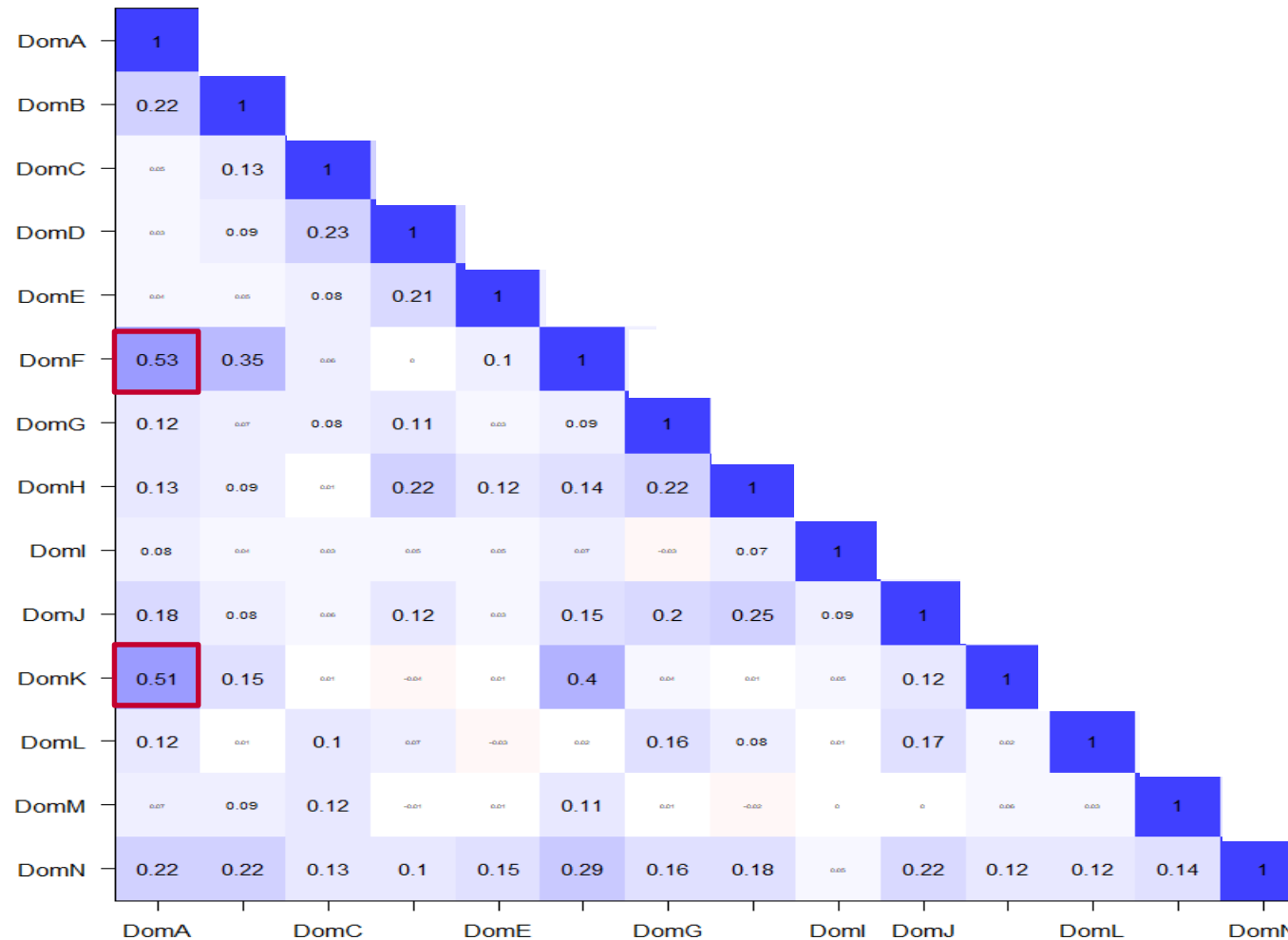
## *Domain Number of Items and Mean Scores*

Domain	Topic	# of Items	Mean Scores
A	Prior DV-related incidents	5	1.27
B	Substance Use	3	0.86
C	Mental Health	7	0.66
D	Suicidal/Homicidal	4	0.28
E	Use/threatened use of weapons	3	0.34
F	Criminal history	6	1.38
G	Obsession with the victim	2	0.23
H	Safety concerns	8	0.89
I	Violence and/or threatened violence toward family members	3	0.56
J	Attitudes that support or condone spousal assault	2	0.31
K	Prior DV treatment	1	0.29
L	Victim separated from offender within previous six months	1	0.24
M	Unemployed	1	0.29
N	Involvement with pro-criminal influences	2	0.37

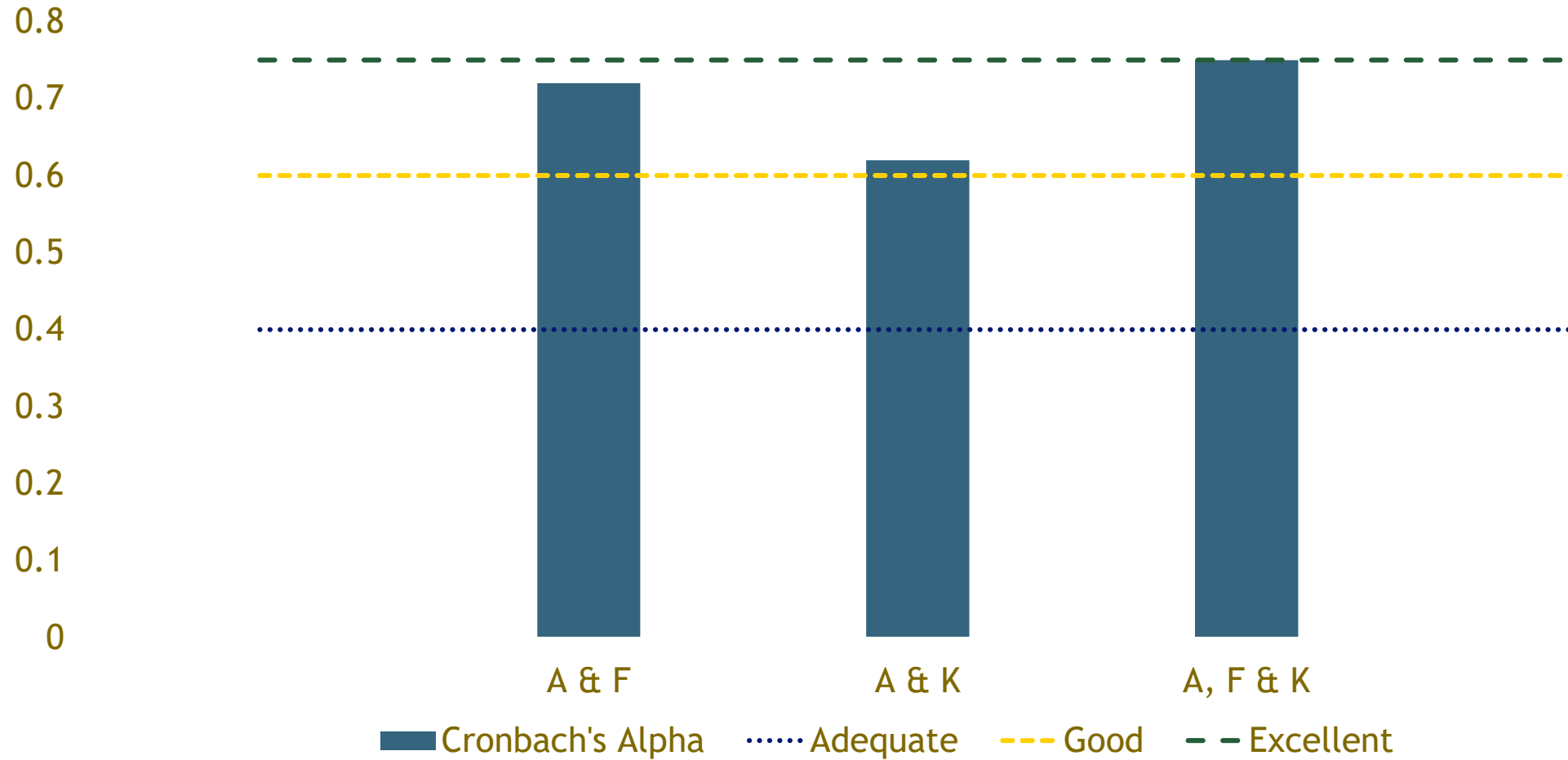
# *Cronbach's alpha reliability scores for DVRNA & Domains with suggested interpretations*



# Correlation Plot



# Exploratory Findings



# *Limitations & Suggestions for Improving Data Collection for DVRNA*

- Unable to assess impact of item 2 in Domain F as an automatic placement question, which only had yes or no responses.

*“Offender has a prior arrest for assault, harassment, or menacing. If there have been two or more arrests it is an automatic placement question.”*

- Difficulty assessing which entry represented the initial assessment in cases where individuals had multiple records



# *Limitations & Suggestions for Improving Data Collection for DVRNA*

- Unable to do interrater reliability scoring to assess differences in how different treatment providers may have evaluated individuals.
- Limited availability of demographics in our dataset.
- Incomplete records for organization and discharge reason.
- Dataset is representative of DVOMB Approved Providers who use ReliaTrax.
- Explore retroactive and prospective data clean-up with ReliaTrax before further recidivism analyses.
- Improvements to recruitment rate of participating clients (ROI = 41%)

# *Discussion:*

1. Due to the skewed distribution of treatment levels, does the board still think it is important to have three tracks?
2. Is the board interested in exploring different cut points for the treatment tracks?
3. Is the board amenable to combining domains, or doing some item trimming to improve the reliability scores?

# *Thank you!*

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# Differences in Scoring based on ROI Status

Characteristic	No ROI N = 718	Has ROI, N = 494	p-value
Level Placed, (N, (%))			0.3
A	14 (1.9%)	13 (2.6%)	
B	131 (18%)	106 (21%)	
C	573 (80%)	375 (76%)	
Level Recommended, (N, (%))			0.054
A	11 (1.5%)	14 (2.8%)	
B	146 (20%)	121 (24%)	
C	561 (78%)	359 (73%)	
Total Score (Mean, (SD))	5.67 (2.36)	5.13 (2.20)	<0.001