

# Final Report

due November 16, 2021 by 11:59 PM

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Abstract:

Background and Significance:

Methods: a) Data Collection and Variables

b) Exploratory Data Analysis

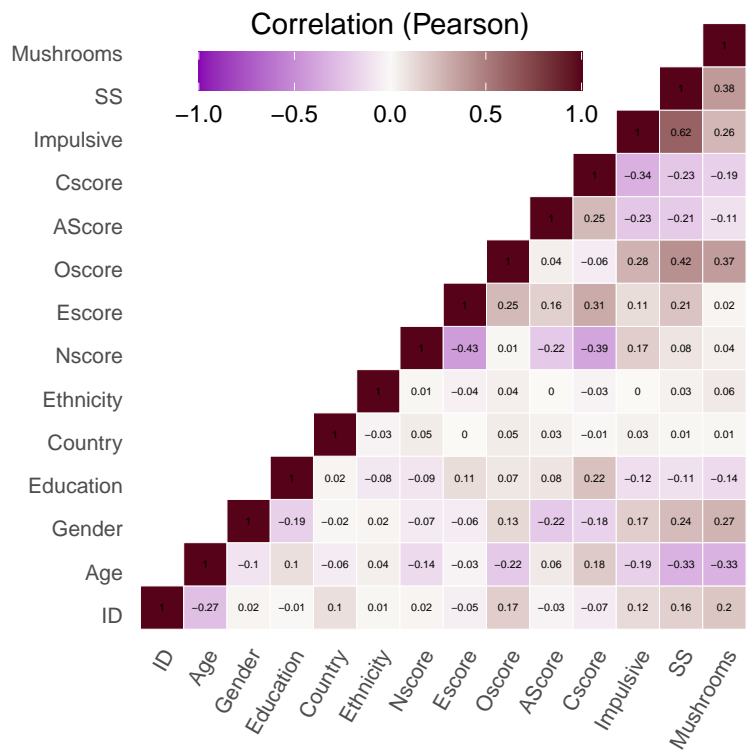
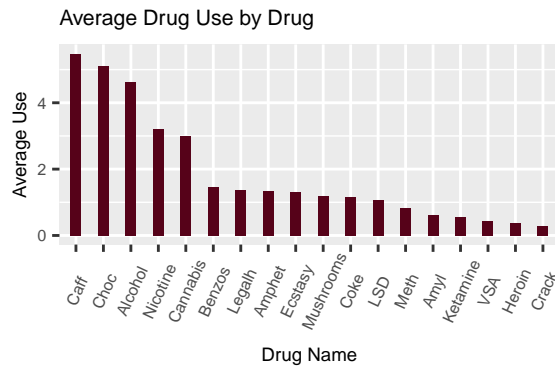
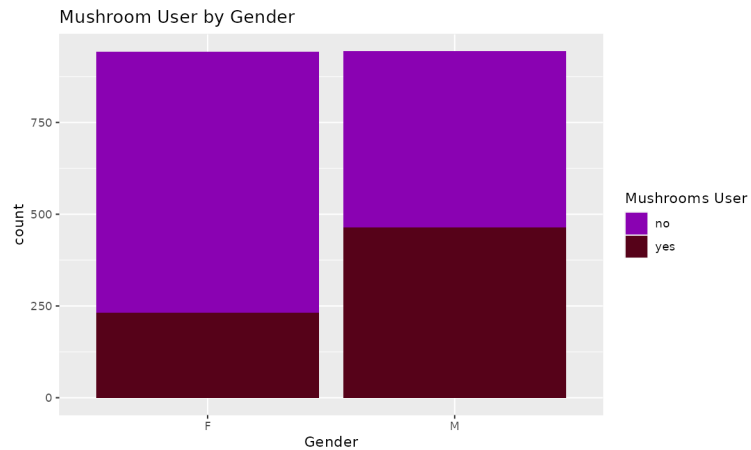


Table 1: Difference in Number of Users and Non-Users by Drug

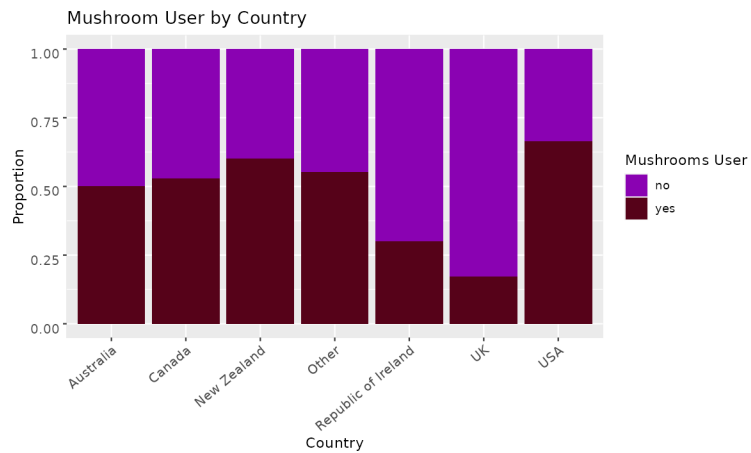
diff	drug
349	Benzos_User
361	LegalHighs_User
383	Ecstasy_User
497	Mushrooms_User
511	Cocaine_User
529	Amphetamine_User

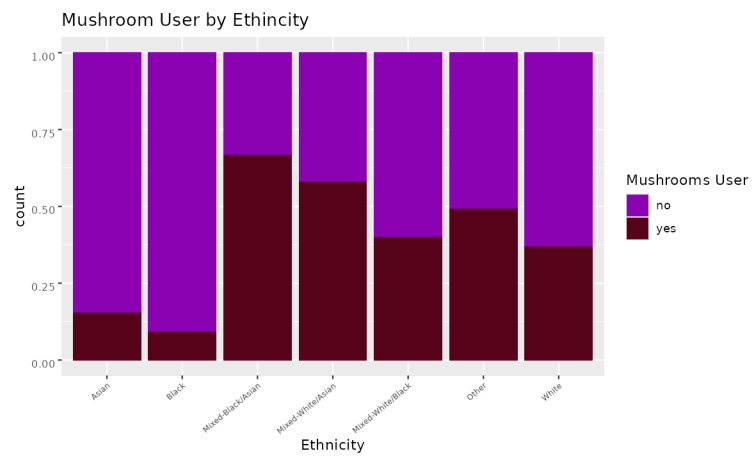
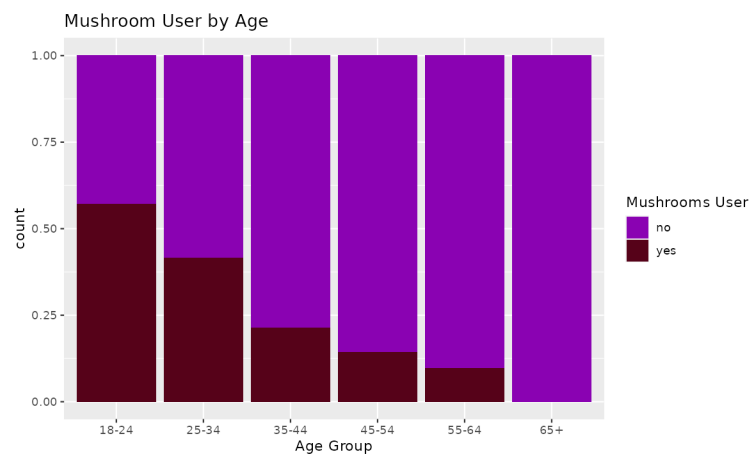
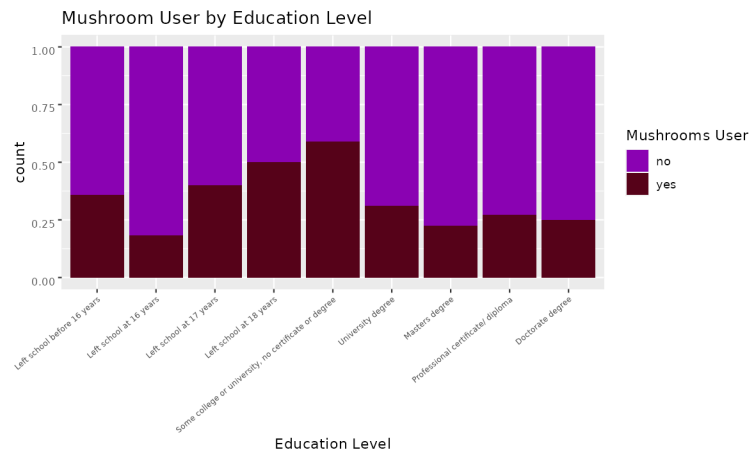
### c) Analytical Methods

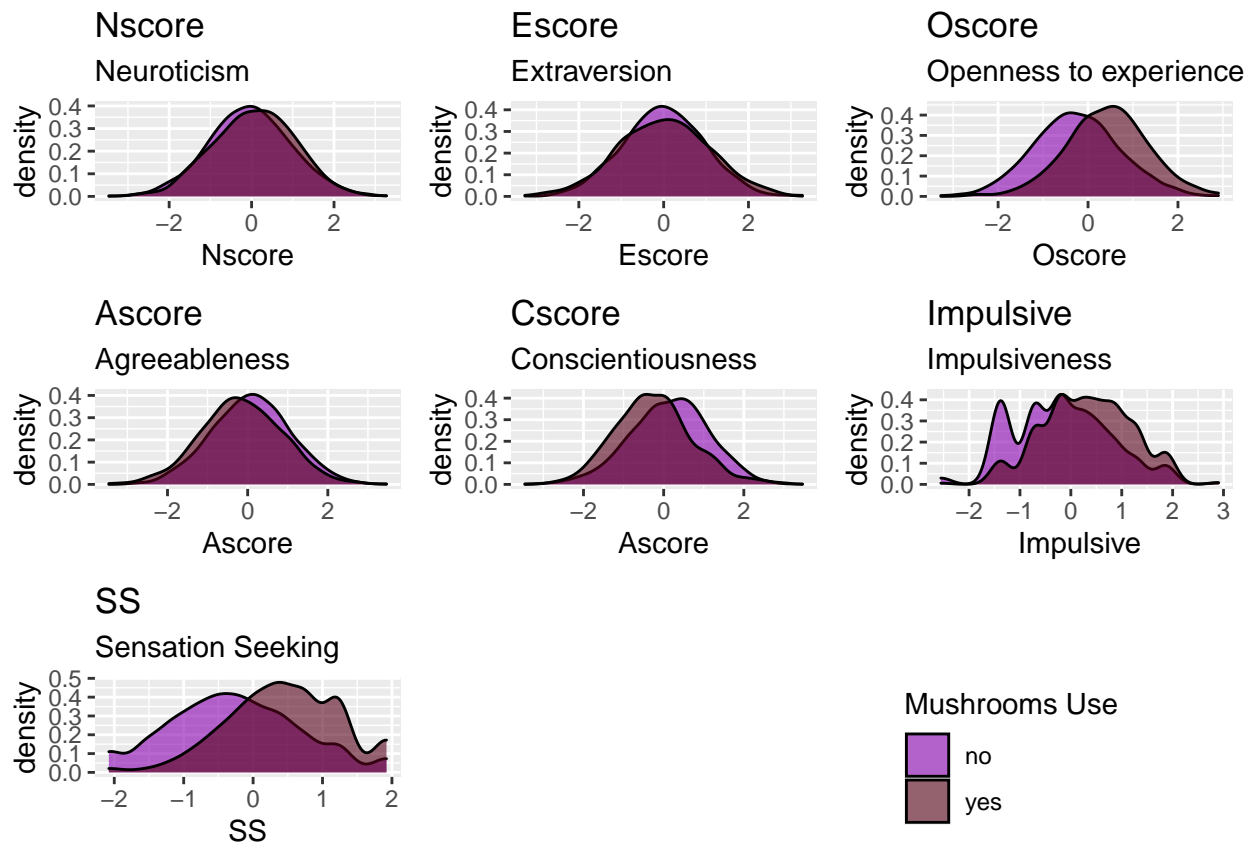


```
##
## Fisher's Exact Test for Count Data
##
## data: drug_clean_2$Gender and drug_clean_2$Mushrooms_User
## p-value < 2.2e-16
## alternative hypothesis: true odds ratio is not equal to 1
## 95 percent confidence interval:
##  2.426426 3.624594
## sample estimates:
## odds ratio
##  2.962888
```

-Since the p-value is less than the significance level, gender is statistically significant.







```
## # A tibble: 2 x 7
##   term      estimate std.error statistic  p.value conf.low conf.high
##   <chr>      <dbl>    <dbl>    <dbl>    <dbl>    <dbl>    <dbl>
## 1 (Intercept)  0.325    0.0757   -14.8 1.03e-49  0.280    0.377
## 2 GenderM      2.96    0.0999    10.9 1.46e-27  2.44     3.61

## Warning: glm.fit: fitted probabilities numerically 0 or 1 occurred
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## # A tibble: 6 x 7

##	term	estimate	std.error	statistic	p.value	conf.low	conf.high
##	<chr>	<dbl>	<dbl>	<dbl>	<dbl>	<dbl>	<dbl>
##	1 (Intercept)	1.33	0.0797	3.58	3.48e- 4	1.14	1.56
##	2 Age25-34	0.535	0.122	-5.12	3.07e- 7	0.421	0.679
##	3 Age35-44	0.205	0.152	-10.4	1.74e-25	0.151	0.275
##	4 Age45-54	0.125	0.185	-11.2	2.54e-29	0.0863	0.178
##	5 Age55-64	0.0806	0.360	-7.00	2.52e-12	0.0371	0.155
##	6 Age65+	0.000000131	343.	-0.0462	9.63e- 1	NA	140.

## # A tibble: 9 x 7

##	term	estimate	std.error	statistic	p.value	conf.low	conf.high
##	<chr>	<dbl>	<dbl>	<dbl>	<dbl>	<dbl>	<dbl>
##	1 (Intercept)	1.42	0.0903	3.89	9.94e- 5	1.19	1.70
##	2 EducationDoctorate d~	0.231	0.262	-5.60	2.19e- 8	0.136	0.380
##	3 EducationLeft school~	0.156	0.276	-6.73	1.72e-11	0.0886	0.263
##	4 EducationLeft school~	0.469	0.383	-1.97	4.84e- 2	0.216	0.985
##	5 EducationLeft school~	0.704	0.219	-1.60	1.09e- 1	0.457	1.08
##	6 EducationLeft school~	0.391	0.405	-2.32	2.03e- 2	0.170	0.848
##	7 EducationMasters deg~	0.202	0.169	-9.48	2.61e-21	0.144	0.279
##	8 EducationProfessiona~	0.262	0.164	-8.16	3.45e-16	0.189	0.360
##	9 EducationUniversity ~	0.317	0.134	-8.60	8.25e-18	0.243	0.411

## # A tibble: 7 x 7

##	term	estimate	std.error	statistic	p.value	conf.low	conf.high
##	<chr>	<dbl>	<dbl>	<dbl>	<dbl>	<dbl>	<dbl>
##	1 (Intercept)	1.96	0.0896	7.53	5.24e-14	1.65	2.34
##	2 CountryAustralia	0.509	0.287	-2.35	1.86e- 2	0.290	0.896
##	3 CountryCanada	0.572	0.233	-2.40	1.62e- 2	0.362	0.904
##	4 CountryNew Zealand	0.764	0.917	-0.293	7.69e- 1	0.126	5.84
##	5 CountryOther	0.625	0.206	-2.29	2.22e- 2	0.418	0.937
##	6 CountryRepublic of I~	0.218	0.496	-3.07	2.16e- 3	0.0763	0.554
##	7 CountryUK	0.105	0.122	-18.5	1.05e-76	0.0824	0.133

## # A tibble: 8 x 7

##	term	estimate	std.error	statistic	p.value	conf.low	conf.high
##	<chr>	<dbl>	<dbl>	<dbl>	<dbl>	<dbl>	<dbl>
##	1 (Intercept)	0.507	0.0552	-12.3	7.17e-35	0.454	0.564
##	2 Nscore	0.849	0.0629	-2.60	9.36e- 3	0.750	0.960
##	3 Oscore	1.89	0.0641	9.97	2.05e-23	1.67	2.15
##	4 Impulsive	1.03	0.0739	0.334	7.38e- 1	0.887	1.19
##	5 SS	1.87	0.0782	8.00	1.20e-15	1.61	2.18
##	6 Cscore	0.764	0.0638	-4.22	2.45e- 5	0.674	0.865
##	7 AScore	0.895	0.0574	-1.93	5.33e- 2	0.800	1.00
##	8 Escore	0.801	0.0650	-3.41	6.41e- 4	0.705	0.909

Results:

Discussion:

References: